All-in-One PC for POS, POI, Kiosk Applications

The Shuttle XPC all-in-one X5070XA is eqipped with Intel's Celeron ULV processor, 4 GB RAM, 500 GB hard disk, but without operation system. The modern processor architecture helps improve on power consumption and computing power. Thanks to its passive cooling, the system is virtually noiseless, maintenance-free and approved for 24/7 nonstop operation. Particularly suitable for vertical applications is the arrangement of connectors at the bottom and the IP54 compliant front panel which is dust-protected and protected from splashing of water.

Feature Highlights

All-in-One Design	• XPC all-in-one with touchscreen • Small: 391 x 327 x 42 mm (WHL) • Stand can also be used as a handle • 100 mm VESA mount capable • IP54 compliant front panel • Approved for 24/7 nonstop operation
Display & Graphics	• 39.6 cm (15.6") resistive touchscreen with a 1366 x 768 resolution • Integrated Intel UHD 610 graphics • HDMI 1.4a + D-Sub/VGA Video output
CPU & Cooling	• Intel Celeron 4205U, 1.8 GHz, 15 W TDP • Fanless heatpipe cooling system
Storage	• 4 GB DDR4-2400 SO-DIMM memor • 500 GB hard disk drive (SATA, 2.5") • Supports one M.2-2280 SSD stick • Supports internal USB stick (USB 2.0, type A)
Operating System	• Operating system is not included • Supports Windows 10 (64-bit) & Linux (64-bit)
Connectivity	• HDMI 1.4a, D-Sub/VGA • 4x USB 3.2 Gen 1 (5 Gbps), 2x USB 2.0, internal: 1x USB 2.0 Type A • Microphone input, headphones output • Gigabit LAN, Wireless LAN 802.11ac, BT 4.2 • Optional: 4x RS232, 1x LPT, 1x RJ11
Built-in	• SD card reader, 2x 2 W speakers • 2.0 Megapixel HD webcam • Electret Condenser Microphone
Power Supply	• External fanless power adapter, 65 W
Warranty	• 24 months Bring-in Service

XPC all-in-one System
X5070XA Black

Images for illustration purposes only.

15.6" Touchscreen — **Nonstop operating** — **Fanless cooling**

IP54 Front protected: dust & water — **Wi-Fi Wireless and Wired Network** — **Supports Windows 10 & Linux (64-bit)**

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Shuttle XPC all-in-one X5070XA − Overview

1	Touchscreen LCD display	**10**	Hole with Power Button	**19**	DC-input for Power Adapter
2	Webcam	**11**	SD Card Reader	**20**	2x USB 2.0
3	Microphone	**12**	2x USB 3.2 Gen 1	**21**	RJ45 Gigabit LAN
4	Power on LED	**13**	Clear CMOS Button	**22**	2x USB 3.2 Gen 1
5	Hard disk LED	**14**	Stand (handle)	**23**	HDMI Video Output
6	Stereo speakers	**15**	Ventilation holes	**24**	Audio Line-out (headphones)
7	Stylus with holder	**16**	Kensington lock	**25**	Microphone Input
8	Power-on button	**17**	D-Sub/VGA Video Output		
9	2x Perforation for optional WLAN/LTE antenna	**18**	Vesa Mount 100x100mm		

Shuttle XPC all-in-one X5070XA – Special 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.

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. It helps you save space, looks simply stylish and reduces cable clutter.

24/7 nonstop-operation

The Shuttle XPC all-in-one X5070XA is officially approved for 24/7 permanent operation. Thanks to its low power consumption and completely passive cooling, this PC runs highly reliably making it perfectly suitable for digital signage and POI/POS applications.

<u>Conditions for permanent use:</u>

- Free circulation of air amongst the PC must be guaranteed
- Ventilation holes must be kept clear

Fanless and quiet

The Shuttle XPC all-in-one X5070XA uses a passive thermal module with heatpipes to lead heat out of the case quickly and evenly. The unique fanless design makes it perfect to be used in noise-sensitive environments such as living rooms, hospitals, libraries etc. As an additional benefit, fanless cases rarely gather dust on the inside and stay cleaner than others. So it's not only quiet and low in energy use, but also virtually maintenance-free.

Connects to two external Full HD displays

The Shuttle XPC all-in-one X5070XA features two video outputs: One analog D-Sub/VGA connector and one HDMI connector. Two external Full HD displays can be connected in extended mode. Now add the built-in display of the X5070XA and there are three displays showing different content.
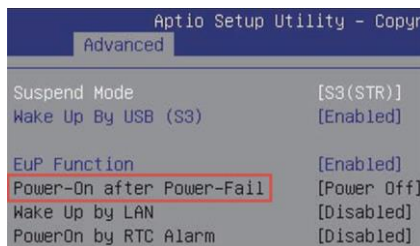
Protection Class IP54

The front panel of the Shuttle XPC all-in-one X5070XA is dust-protected and protected from splashing of water according to IP protection class 54. Consequently, this All-in-One PC can be used for those indoor applications, where the touchscreen may be exposed to humidity and occasional splashing of water. This is particularly welcome in restaurants, laboratories, production or other places.

Optimised Cable Management

Most of the connectors are now located on the back panel facing down. This leads to an effective cable management making for a clean, tidy appearance on the desk.
On the left side sit those connectors which need to be accessed from the front: the card reader and two USB ports.

Power on after Power fail

The BIOS setup provides a "Power-On after Power Fail" function that can be found under "Power Management Configuration" where the PC's behaviour after power failure can be determined.

Hidden Power Button

Left photo: The power button can be deactivated to prevent unauthorised use. Just disconnect the appropriate cable from its header inside the chassis (see red circle).
Right photo: The power button can still be pressed using a straightened paper clip.

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VESA mount

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.

Stylus for the touchscreen

The Shuttle XPC all-in-one X5070XA is equipped with a 5-wire resistive touchscreen for simple operation by finger (even with gloves) or stylus. The stylus comes supplied as standard and sits in an opening located on the top of the chassis. Using the stylus results in a smoother and more precise input than just using a finger.

Kensington Lock

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

Carrying handle

The practical stand can be pulled upwards so that it can also be used as a handle making the Shuttle XPC all-in-one X5070XA easy to carry.

Shuttle XPC all-in-one X5070XA – Range of Applications

Digital Signage
Visual advertising,
Info Terminal

POS
Checkout system in Retail
Stores, Restaurants, Hotels

POS Radio
Playing advertising
and music

Call System
e.g. for nurses (hospital)
or security personnel
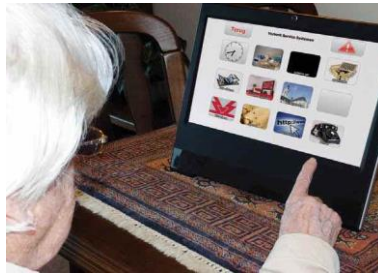

Smart Home Control
Surveillance,
Home Automation

Device Control
e.g. for copy
machines

Device Control
e.g. for health services or
fitness equipment

Communication Device
e.g. for the elderly

Visualisation
e.g. for industrial production
machines

On a boat
e.g. for navigation and
entertainment

Data Collector
e.g. Recording of
working hours

Entertainment
e.g. at the dentist or
in the waiting room

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Shuttle XPC all-in-one X5070XA – Specifications

Fanless and silent	Passive heatpipe cooling, no fan noise at all Perfect to be used in noise-sensitive environments Fanless, dust-free and thus virtually maintenance-free
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 kept clear. - If a hard disk is installed, this must also be approved for permanent operation by its manufacturer.
IP54 protected	The front panel is dust-protected and protected from splashing of water according to protection class IP54.
Chassis	Colour: black Dimensions: 391 x 327 x 42 mm (W x H x D) 100mm VESA mount capable Mounting hole for Kensington lock Weight: 3.6 kg net, 4.8 kg gross
Operating System	This system comes without operating system. It is compatible with: - Windows 10 (64-bit) - Linux (64-bit)
Touchscreen	Touchscreen function supports fingertip input Resistive 5-wire single-touch technology Stylus for the built-in touchscreen
15.6" Display	39.6 cm / 15.6" LCD display, ratio: 16:9 widescreen panel Resolution: 1366 x 768 = 1.05 Megapixel Backlight unit: High power LED, Luminance: 220 cd/sqm Glass thickness: 0.5 mm
Processor	Model: Intel Celeron 4205U (ULV) System-on-a-chip architecture (SoC) with integrated memory and graphics controller: no chipset required FCBGA1528 package - directly soldered onto the mainboard Code name: Whiskey Lake-U (8th Generation Intel Core) Cores / Threads: 2 / 2 Clock rate: 1.8 GHz L1/L2/L3 Cache: 128 kB / 512 kB / 2048 kB TDP wattage: 15 W maximum Manufacturing process: 3rd-generation enhanced 14nm++ Maximum Tjunction Temperature: 100 °C Supports 64-bit, VT-x (EPT), VT-d, Enhanced SpeedStep, NX bit, AES-NI, SSE 4.1/4.2

Integrated Graphics	Intel UHD Graphics 610 GPU clock frequency: 300~900 MHz Execution Units (EUs): 12 Supports DirectX 12 Supports full H264, H265 8/10 bit, VP8/9, VC-1, AVC hardware decoding Supports Quick Sync Video and Clear Video HD technology
Up to three displays	Two video ports support two additional independent screens: 1) HDMI 1.4a supports 1920 x 1080 @ 60 Hz or 3840 x 2160 @ 30 Hz 2) VGA / D-Sub analog video supports 1920 x 1080 @ 60 Hz Special conditions for operation in Multi-Monitor mode: 1) Clone mode: all displays show the same content at 1366 x 768 resolution 2) Extended mode: all displays show different content
BIOS	AMI BIOS in 8 MByte EEPROM with SPI interface Supports Power fail resume / always on Supports Wake-on-LAN (WOL) from S3, S4, S5 ACPI states Supports hardware monitoring and watch dog functionality Supports Firmware TPM v2.0 functionality
Memory	4 GB DDR4-2400 (PC4-19200) SDRAM at 1.2 V SO-DIMM format with 260 pins Supports a maximum of 32 GB per DIMM Maximum total size: 64 GB
Hard Disk	500 GB hard disk drive in 6.35 cm / 2.5" format The SATA 3.0 interface supports up to 600MB/s data transfer speed (6 Gbit/s)
M.2 Slot	The M.2 2280 BM slot provides the following interfaces: - PCI-Express Gen. 3.0 X4 with up to 32 Gbps Data Transfer Speed - SATA v3.0 (max. 6 Gbps) It supports M.2 cards with a width of 22 mm and a length of 80 mm (type 2280). Supports M.2 SATA SSDs (with B+M key) and M.2 PCIe SSDs (with M key)
Card Reader	Integrated card reader supports SD, SDHC and SDXC memory flash cards
Webcam	Integrated 2.0 Megapixel (1600 x 1200) HD webcam
Microphone Speakers	Front panel with integrated Electret Condenser Microphone and 2x 2W speakers
Audio	Realtek ALC269 Audio Codec Two analog audio connectors (3.5 mm) on the bottom side: 1) Line-out (headphones) 2) Microphone input Digital Audio is supported via HDMI.

Wired Network	Intel i211 Ethernet Controller with MAC, PHY and PCIe interface Supports 10 / 100 / 1.000 MBit/s operation Supports WAKE ON LAN (WOL) from S3, S4 modes Supports network boot by Preboot eXecution Environment (PXE)
Wireless Network	Built-in M.2-2230-A/E WLAN card with connectors for two external antennas WLAN Controller Realtek RTL8821AE Supports WiFi IEEE 802.11b/g/n/ac on the 2.4 / 5 GHz band, 1T1R Supports 20 / 40 / 80 MHz channel bandwidth Security: supports WPA(-PSK), WPA2(-PSK), WEP 64/128 bit, IEEE 802.11x, IEEE 802.11i Supports Bluetooth 4.0 on the 2.4 GHz band
Front LEDs	Power LED (blue) Hard disk LED (orange)
Connectors left side	Power button 2x USB 3.2 Gen 1 (5 Gbps) SD card reader Hole with power button Hole with Clear CMOS button Perforation for optional WLAN/LTE antenna (diameter: 6.5 mm)
Connectors bottom side	HDMI 1.4a (supports digital video and digital audio) 2x USB 3.2 Gen 1 (5 Gbps) 2x USB 2.0 Gigabit Network (LAN, RJ45) Audio Line-out / headphones (3.5 mm jack) Microphone input (3.5 mm jack) DC input for external power adapter (5.5 / 2.5 mm) Perforation for optional WLAN/LTE antenna (diameter: 6.5 mm) Optional: 2x COM/serial (RJ45), DIO (RJ11) for cash drawer (accessory POS01)
Connectors rear side	VGA connector (D-Sub 15 pol., analog video) Optional: 2x COM/serial (D-Sub), 1x LPT/parallel (accessory: PCL71 or POS01)
Connectors onboard	Internal USB 2.0 type A connector for a USB stick Serial ATA (6 Gbps) Serial ATA power connector 3x USB 2.0 header (all occupied) eDP connector (Embedded DisplayPort) - occupied by the display Connector for optional COM/LPT adapter POS01 or PCL71
Power Adapter	External 65 W power adapter (fanless) Input: 100~240 V AC, 50/60 Hz, max. 1.6 A Output: 19 V DC, max. 3.42 A, max. 65 W DC Connector: 5.5 / 2.5 mm (outer/inner diameter) Note: The X5070XA also supports a 60 W power adapter with 12 V DC output voltage

DC Input	DC Input Connector: 5.5 / 2.5 mm (outer/inner diameter) The DC-input of the computer supports an external power source with either 12V±5% or 19V±5%.
Included Accessories	Quick Guide Driver DVD External Power Adapter (65W / 19V) with Power cord Serial ATA cable for the 2.5" drive Screws
Optional Accessories	PCL71: COM / LPT adapter: - 1x Parallel (25p D-Sub) - 2x Serial RS232 (9p D-Sub) supports 0 / 5 / 12V POS01: COM / LPT adapter: - 1x Parallel (25p D-Sub) - 2x Serial RS232 (9p D-Sub) supports 0 / 5 / 12V - 2x Serial RS232 (8p RJ45) - 1x DIO/RJ11 connector for cash drawer supports 12 / 24V PF55: Carrying bag
Environ-mental criteria	Operating temperature: 0~40 °C Humidity: 10~90 %, non-condensing
Certification and Compliance	EMI: CE, FCC, BSMI Safety: CB, BSMI, ETL Other compliances: RoHS, ErP Lot6, Energy Star v5.0
Conformity	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 directives: (1) 2014/30/EU relating to electromagnetic compatibility (EMC), (2) 2014/35/EU relating to Electrical Equipment designed for use within certain voltage limits (LVD), (3) 2009/125/EC relating to ecodesign requirements for energy-related products (ErP), (4) 2014/53/EU Radio Equipment Directive (RED)

X50V7 Series Product Overview

Product	Type	Processor	RAM	Storage	COM/LPT	OS	Bar code
X50V7 Black	Barebone	Intel Celeron 4205U	—	—	—	—	887993002149
X50V7 White	Barebone	Intel Celeron 4205U	—	—	—	—	887993002156
X50V7U3 Black	Barebone	Intel Core i3-8145U	—	—	—	—	887993002163
X50V7U3 White	Barebone	Intel Core i3-8145U	—	—	—	—	887993002170
X5070XA Black	System	Intel Celeron 4205U	4 GB	500 GB HDD	—	—	4046047103584
X5070XA White	System	Intel Celeron 4205U	4 GB	500 GB HDD	—	—	4046047103577
POS X507 Black	System	Intel Celeron 4205U	4 GB	120 GB SSD	2x COM + LPT	—	4046047103591
POS X507 White	System	Intel Celeron 4205U	4 GB	120 GB SSD	2x COM + LPT	—	4046047103560
X5073XA Black	System	Intel Core i3-8145U	8 GB	120 GB SSD	—	—	4046047103546
X5073TA Black	System	Intel Core i3-8145U	8 GB	120 GB SSD	—	Windows 10 Pro	4046047103553