

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

The Shuttle XPC all-in-one X5070PA is equipped with Intel's Celeron ULV processor, 4 GB RAM, 120 GB M.2 SSD and Windows 10 IoT Enterprise. 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Intel Celeron 4205U, 1.8 GHz, 15 W TDP • Fanless heatpipe cooling system
Storage	<ul style="list-style-type: none"> • 4 GB DDR4-2400 SO-DIMM memor • 120 GB M.2 SSD • Supports one 2.5" drive (hard disk or SSD) • Supports internal USB stick (USB 2.0, type A)
Operating System	<ul style="list-style-type: none"> • Windows 10 IoT 2019 Enterprise Entry 64-bit
Connectivity	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • SD card reader, 2x 2 W speakers • 2.0 Megapixel HD webcam • Electret Condenser Microphone
Power Supply	<ul style="list-style-type: none"> • External fanless power adapter, 65 W
Warranty	<ul style="list-style-type: none"> • 24 months Bring-in Service

XPC all-in-one System X5070PA Black



Images for illustration purposes only.



15.6" Touchscreen



Nonstop operating



Fanless cooling



Front protected: dust & water



Wireless and Wired Network



Windows 10 (64-bit)



Shuttle XPC all-in-one X5070PA – 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 X5070PA – 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 X5070PA 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.

Conditions for permanent use:

- 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 X5070PA 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 X5070PA 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 X5070PA and there are three displays showing different content.



Protection Class IP54

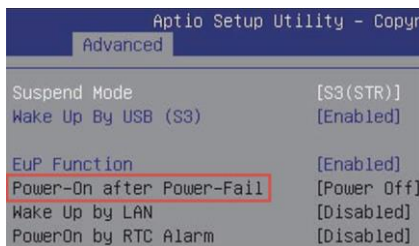
The front panel of the Shuttle XPC all-in-one X5070PA is dust-protected and protected from splashing of water according to IP protection class 54. Consequently, this All-in-One PC can be used for those indoor applications, where the touchscreen may be exposed to humidity and occasional splashing of water. 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.



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 X5070PA 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 X5070PA easy to carry.

Shuttle XPC all-in-one X5070PA – 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



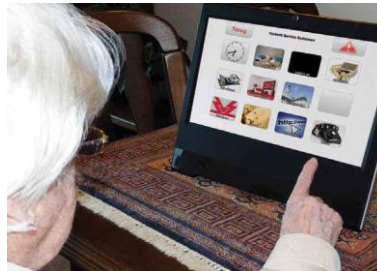
Device Control
e.g. for copy
machines



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 X5070PA – Specifications

<i>Fanless and silent</i>	<p>Passive heatpipe cooling, no fan noise at all Perfect to be used in noise-sensitive environments Fanless, dust-free and thus virtually maintenance-free</p>
<i>24/7 nonstop operation</i>	<p>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.</p>
<i>IP54 protected</i>	<p>The front panel is dust-protected and protected from splashing of water according to protection class IP54.</p>
<i>Chassis</i>	<p>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</p>
<i>Operating System</i>	<p>Windows 10 IoT 2019 Enterprise Entry - 64-bit</p>
<i>Touchscreen</i>	<p>Touchscreen function supports fingertip input Resistive 5-wire single-touch technology Stylus for the built-in touchscreen</p>
<i>15.6" Display</i>	<p>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</p>
<i>Processor</i>	<p>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</p>

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Integrated Graphics	<p>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</p>
Up to three displays	<p>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</p>
BIOS	<p>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</p>
Memory	<p>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</p>
2.5 Storage Bay	<p>Supports one SATA hard disk or one SATA SSD drive in 6.35 cm / 2.5" format The SATA 3.0 interface supports up to 600MB/s data transfer speed (6 Gbit/s) Supports one drive with up to 12.5 mm in height</p>
M.2 SSD	<p>120 GB SSD card in M.2-2280 form factor</p>
Card Reader	<p>Integrated card reader supports SD, SDHC and SDXC memory flash cards</p>
Webcam	<p>Integrated 2.0 Megapixel (1600 x 1200) HD webcam</p>
Microphone Speakers	<p>Front panel with integrated Electret Condenser Microphone and 2x 2W speakers</p>
Audio	<p>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.</p>
Wired Network	<p>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)</p>

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Wireless Network	<p>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</p>
Front LEDs	<p>Power LED (blue) Hard disk LED (orange)</p>
Connectors left side	<p>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)</p>
Connectors bottom side	<p>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)</p>
Connectors rear side	<p>VGA connector (D-Sub 15 pol., analog video) Optional: 2x COM/serial (D-Sub), 1x LPT/parallel (accessory: PCL71 or POS01)</p>
Connectors onboard	<p>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</p>
Power Adapter	<p>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 X5070PA also supports a 60 W power adapter with 12 V DC output voltage</p>
DC Input	<p>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%.</p>

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Included Accessories	<p>Quick Guide Driver DVD External Power Adapter (65W / 19V) with Power cord Serial ATA cable for the 2.5" drive</p>
Optional Accessories	<p>PCL71: COM / LPT adapter: - 1x Parallel (25p D-Sub) - 2x Serial RS232 (9p D-Sub) supports 0 / 5 / 12V</p> <p>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</p> <p>PF55: Carrying bag</p>
Environmental criteria	<p>Operating temperature: 0~40 °C Humidity: 10~90 %, non-condensing</p>
Certification and Compliance	<p>EMI: CE, FCC, BSMI Safety: CB, BSMI, ETL Other compliances: RoHS, ErP Lot6, Energy Star v5.0</p>
Conformity	<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 directives:</p> <p>(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)</p>

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
X5070TA Black	System	Intel Celeron 4205U	4 GB	120 GB SSD	—	Win 10 Pro Entry	4046047103645
X5070PA Black	System	Intel Celeron 4205U	4 GB	120 GB SSD	—	W10 IoT Enterpr.	4046047103638
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