Shuttle®

BAREBONE
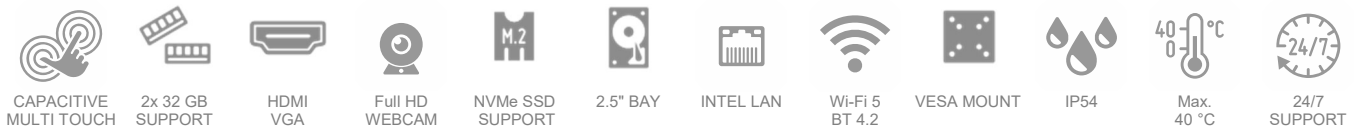## XPC all-in-one
P92U3 Black

19.5" ALL-IN-ONE PC FOR POS, POI AND KIOSK APPLICATIONS

The Shuttle XPC all-in-one P92U3 is a All-In-One PC with capacitive touchscreen in 19.5 inch format. An Intel "Comet Lake-U" Ultra-Low-Voltage processor makes for high computing power while it keeps energy consumption at a low level. 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.

CAPACITIVE MULTI TOUCH	2x 32 GB SUPPORT	HDMI VGA	Full HD WEBCAM	NVMe SSD SUPPORT	2.5" BAY	INTEL LAN	Wi-Fi 5 BT 4.2	VESA MOUNT	IP54	Max. 40 °C	24/7 SUPPORT

COMMON FEATURES
■ IP54 compliant front panel ■ Dimensions: 487 x 321 x 44 mm (WHD)
■ Supports 24/7 Nonstop Operation ■ 100 mm VESA mount capable
■ Operating temperature: 0~40 °C ■ Fanless heatpipe cooling system

DISPLAY & GRAPHICS
■ 49.5 cm (19.5") LC Display, 1600 x 900 pixel ■ Capacitive 10-point multi-touch ■ Integrated Intel UHD 610 graphics ■ HDMI 1.4 & VGA

OPERATING SYSTEM
■ An operating system is not included
■ Supports Windows 10/11 (64-bit) and Linux (64-bit)

PROCESSOR
■ Intel Core i3-10110U "Comet Lake-U" Dual Core, 4 Threads, TDP: 15W

STORAGE (not included)
■ Supports max. 2x 32 GB DDR4-2666 SO-DIMM ■ Supports one 2.5" SATA hard disk / SSD ■ Supports one M.2-2280 SSD (SATA or PCIe X4/NVMe) ■ Supports internal USB stick (USB 2.0, type A)

CONNECTIVITY
■ HDMI 1.4 ■ D-Sub/VGA ■ 4x USB 3.2 Gen 1 ■ 2x USB 2.0 ■ internal: 1x USB 2.0 (Type A) ■ 2x Audio (Mic & headphones) ■ Gigabit LAN (Intel)

BUILT-IN
■ SD card reader ■ 2.0 Megapixel FHD webcam ■ 2x 2 W speakers
■ Electret Condenser Microphone ■ Wireless LAN 802.11ac, BT 4.2

POWER SUPPLY
■ External 65W / 19V power adapter

OPTIONAL ACCESSORIES
■ PCL71: 2x COM, 1x LPT
■ POS01: 4x COM (2x D-Sub, 2x RJ45), LPT, RJ11
■ PNFC03: NFC module (only on request)

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MODELS OF THE P92U SERIES

Product	Available Colors	Intel ULV CPU	Cores	Threats	Clock/Turbo	Cache	Max. RAM support	UPC Code
P92U	Black or White	Celeron 5205U	2	2	1.9 / -- GHz	2 MB	2x 32 GB DDR4-2400	Black: 887993003191 White: 887993003764
P92U3	Black or White	Core i3-10110U	2	4	2.1 / 4.1 GHz	4 MB	2x 32 GB DDR4-2666	Black: 887993003207 White: 887993003771
P92U5	Black	Core i5-10210U	4	8	1.6 / 4.2 GHz	6 MB	2x 32 GB DDR4-2666	Black: 887993003214

PRODUCT FEATURES

All applications at your fingertips - 10-point multi-touch

The innovative touchscreen technology delivers the simplest operation possible and makes the screen the centre of action. Its high-quality design gives you access to all capabilities of the PC - by just touching the screen.

24/7 nonstop operation

The Shuttle XPC all-in-one P92U3 is officially approved for 24/7 permanent operation. Thanks to its low power consumption and completely passive 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 - 40 °C
- Air humidity while under load: 10 - 80 % (not condensing)
- 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.

Fanless and quiet

The Shuttle XPC all-in-one P92U3 uses a passive thermal module to lead heat out of the case quickly and evenly. The unique fanless design makes it perfect to be used in noise-sensitive environments. 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.

Protection Class IP54

The front panel of the Shuttle XPC all-in-one P92U3 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 at 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.

Connects to two external Full HD displays

The Shuttle XPC all-in-one P92U3 features two video outputs: One analog D-Sub/VGA connector and one HDMI connector. Two separate Full HD displays can be connected in extended mode. Now add the built-in display of the P92U3 and there are three displays showing different content.

Hidden Power Button

The power button can be deactivated to prevent unauthorised use. To do so, disconnect the appropriate connection (SW2302) inside the chassis. Still, it can be used with a straightened paper clip as shown on the left (see photo).

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.

*) VESA mount is not included

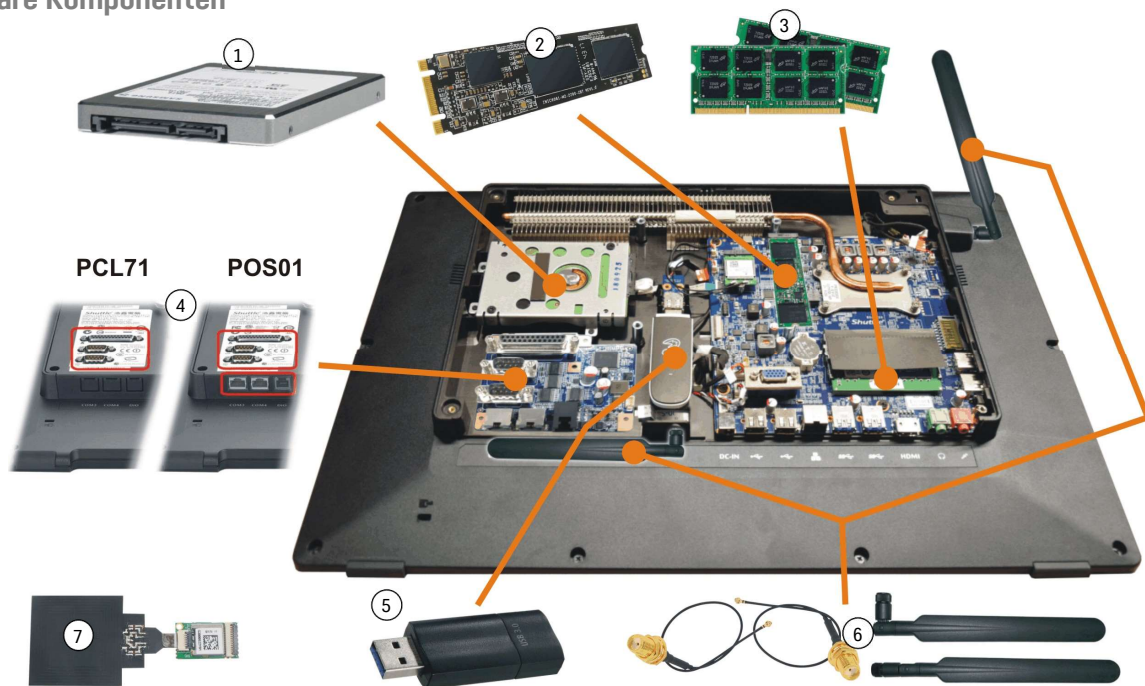### Black and White versions available

Choose the right colour for your application. As a rule, black is preferred for use in the office, as a POS system in retail or as a control unit in manufacturing. The white version is often used in the health sector, in the kitchen area or as a POS system in the cosmetics/massage studio.

Front and Back Panel

Right Side

Front View

Left Side

Back panel

Bottom

optional

1. Stand
   (a) Stand mounting plate
   (b) VESA cover
   (c) 100 x 100 mm VESA mount
2. Full HD Webcam
3. Microphone
4. Touchscreen LCD display
5. Power button
6. 2x Perforation for external antenna
7. Hole for hidden power button

8. SD card reader
9. 4x USB 3.2 Gen 1 (5 Gbps)
10. Power LED
11. Hard disk LED
12. 2x speakers (stereo)
13. Name plate (rating label)
14. Hole for Kensington lock
15. D-Sub/VGA video output
16. LPT Parallel Port (optional)
17. 2x D-Sub COM port (optional)

18. 2x RJ45 COM port (optional)
19. RJ11 for cash drawer (optional)
20. DC-input for power adapter
21. 2x USB 2.0
22. RJ45 Gigabit LAN port
23. HDMI video output
24. Audio Line-out (headphones)
25. Microphone input
26. Openings for ventilation

Einbaubare Komponenten

PCL71   **POS01**

1. **2.5" SATA Drive**
   Hard disk or SSD, max. 12.5 mm in height
2. **M.2-2280 SSD Card**
   SATA or PCIe interface
3. **DDR4 SO-DIMM memory**
   max. 2x 32 GB DDR4-2400/2666
4. **Optional COM-, LPT- and DIO ports**
   While the Shuttle Accessory **PCL71** adds two serial COM ports and one parallel LPT port, the **POS01** adds two more COM ports (with RJ45 connector) and one Digital I/O 12 V / 24 V (RJ11) for a cash drawer.

5. **Internal USB Port**
   Internal USB 2.0 Type A connector for expansion sticks (such as flash memory or LTE). Max. length = 100 mm overall.
6. **Optional Antennas**
   The chassis features two perforated 7 mm holes for optional antennas mounted with an (RP-)SMA connector.
7. **Optional NFC Module PNFCO3**
   13.56 MHz NFC-module for internal installation. Supports Windows 10. Not certified for payment applications.
   Note: this Shuttle accessory is available on request only.

Shuttle Product Comparison: P92U versus predecessor P90U

MODEL	P92U Series	P90U Series
Processor	Intel Core Gen 10, TDP=15W Code name: "Comet Lake-U" **P92U:** Celeron 5205U **P92U3:** Core i3-10110U **P92U5:** Core i5-10210U	Intel Core Gen 7, TDP=15W Code name: "Kaby Lake-U" **P90U:** Celeron 3865U **P90U3:** Core i3-7100U **P90U5:** Core i5-7200U
Operation System Support	Windows 11 – 64-bit Windows 10 – 64-bit Linux – 64-bit	Windows 10 – 64-bit Linux – 64-bit
RAM memory (max.)	Max. 2x 32 GB DDR4-2666 SO-DIMM (Celeron version: DDR4-2400)	Max. 2x 16 GB DDR4-2133 SO-DIMM
LAN	Intel i211 Gigabit LAN	Intel i211 Gigabit LAN
WLAN	Realtek RTL8821CE-CG (WLAN-ac and BT 4.2)	Realtek RTL8821AE (WLAN-ac and BT 4.1)
Audio	C-Media CM6542 (USB) or Realtek ALC269 (HD-Audio)	Realtek ALC269 (HD-Audio)
Connectors left	Power Button 2x USB 3.2 Gen 1 SD Card Reader Perforation (7 mm)	Power Button 2x USB 2.0 SD Card Reader Perforation (7 mm)
Connectors bottom	HDMI 1.4b 2x USB 3.2 Gen 1 2x USB 2.0 Gigabit LAN (i211) Audio Line-out Microphone input DC input Perforation (7 mm) Optional 2x COM (RJ45), 1x DIO (RJ11)	HDMI 1.4b 2x USB 3.2 Gen 1 2x USB 2.0 Gigabit LAN (i211) Audio Line-out Microphone input DC input Perforation (7 mm) Optional 2x COM (RJ45), 1x DIO (RJ11)
Connectors rear	VGA Port Optional 2x COM (D-Sub), 1x LPT	VGA Port Optional 2x COM (D-Sub), 1x LPT
Optional Shuttle Accessories	**PCL71** (2x COM, 1x LPT) **POS01** (4x COM, 1x LPT, 1x DIO) **PNFC03** (NFC module, on request only)	**PCL71** (2x COM, 1x LPT) **POS01** (4x COM, 1x LPT, 1x DIO) **PNFC02** (NFC module, on request only)

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SHUTTLE XPC all-in-one BAREBONE P92U3 — SPECIFICATIONS

FANLESS AND SILENT	Passive heatpipe cooling, absolutely no fan noise Perfect for 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: 487 x 321 x 44 mm (W x H x D) 100 mm VESA mountable Hole for Kensington lock Weight: 4.29 kg net, 5.62 kg gross
OPERATING SYSTEM	This system comes without operating system. It is compatible with: - Windows 11 - 64-bit - Windows 10 - 64-bit - Linux - 64-bit
TOUCHSCREEN	Touchscreen function supports fingertip input Capacitive Touch Panel with 10-point multi-touch Supports input with gloves (PVC, cotton, cotton/linen) Stylus pen not supported
19.5" DISPLAY	49.5 cm / 19.5" LCD display Ratio: 16:9 wide-screen panel Resolution: 1600 x 900 = 1.44 Megapixel (WSXGA/HD+)
PROCESSOR	Model: Intel Core i3-10110U (ULV) System-on-a-chip architecture (SoC) with integrated memory and graphics controller FCBGA1528 package - directly soldered onto the mainboard Code name: Comet Lake U (10th Generation Intel Core) Cores / Threads: 2 / 4 Base frequency: 2.1 GHz Max. Turbo frequency: 4.1 GHz Intel Smart Cache: 4 MB TDP wattage: 15 W maximum Manufacturing process: 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 620 GPU clock frequency: 300~1000 MHz Execution Units (EUs): 23 Supports DirectX 12, OpenGL 4.5 Supports full H264, H265 8/10 bit, VP8/9, VC-1, AVC hardware decoding Supports Quick Sync Video and Clear Video HD technology
SUPPORTS TRIPLE DISPLAY	Two video ports support two additional independent screens: 1) HDMI 1.4b supports 1920 x 1080 @ 60 Hz or 3840 x 2160 @ 30 Hz 2) VGA / D-Sub analog video supports 1920 x 1080 @ 60 Hz Multi-Monitoring modes as follow: Clone mode: All displays show the same content at 1600 x 900. Extended mode: all displays show different content.
BIOS	AMI BIOS in 8 MByte EEPROM with SPI interface Supports Power-on-after-power-fail / always on Supports Wake-on-LAN (WOL) from S3, S4, S5 ACPI states Supports hardware monitoring and Watchdog function Supports Firmware TPM v2.0 function

MEMORY SUPPORT	2x SO-DIMM slot with 260 pins Supports DDR4-2666 (PC4-21300) SDRAM at 1.2 V Supports Dual Channel mode Supports a maximum of 32 GB per DIMM, maximum total size: 64 GB Supports two unbuffered DIMM modules (no ECC or registered)
2.5" BAY FOR HDD/SSD	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 600 MB/s of data transfer speed (6 Gbit/s) Supports one drive with up to 12.5 mm in height SATA cable pre-installed
M.2-2280M SSD SLOT	M.2-2280 Slot The M.2 2280 BM slot provides the following interfaces: - PCI-Express Gen. 3.0 X4 - 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 Full HD webcam (1920 x 1080 pixels)
MICROPHONE AND SPEAKERS	Front panel with integrated Electret Condenser Microphone and 2x 2 W speakers
INTEGRATED AUDIO	C-Media CM6542 (USB) or Realtek ALC269 (HD Audio) Two analog audio connectors (3.5 mm) on the bottom side: 1) Line-out (head-phones) 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 (WLAN)	Chipset: Realtek RTL8821CE-CG M.2-2230 (NGFF) extension card Connected with two internal antennas (via IPEX4) Supports WiFi IEEE 802.11b/g/n/ac in the 2.4/5 GHz band, 1T1R Max. 72.2 / 150 Mbps using 20 / 40 MHz bandwidth in n-mode Max. 433.3 Mbps using 80 MHz bandwidth in ac-mode Supports Bluetooth 4.2 in 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 (max. 5 Gbps) SD card reader Hole with power button Perforation for optional WLAN/LTE antenna (diameter: 7 mm)
CONNECTORS BOTTOM SIDE	HDMI 1.4b (supports digital video and digital audio) 2x USB 3.2 Gen 1 (max. 5 Gbps) 2x USB 2.0 Gigabit Network (LAN, RJ45) Audio Line-out / head-phones (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: 7 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 (Overall length of the USB stick: 100 mm) 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

OPTIONAL ANTENNAS	The chassis features two perforated 7 mm holes for optional antennas mounted with an (RP-)SMA connector for wireless network such as WLAN or WWAN (e.g. LTE)
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 INPUT CONNECTOR	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%.
SUPPLIED ACCESSORIES	Quick Guide Driver DVD External Power Adapter (65W / 19V) Power cord Screws
OPTIONAL ACCESSORIES	**PCL71:** COM / LPT / RJ11 adapter: - 1x Parallel (25p D-Sub) - 2x Serial RS232 (9p D-Sub) supports 0 / 5 / 12V **POS01:** COM / LPT / RJ11 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 **PNFC03:** NFC module (supports Windows 10 only, no Linux and transaction support) - Note: PNFC03 is only available on request
ENVIRONMENTAL SPECIFICATIONS	Operating temperature: 0~40 °C Humidity: 10~90 %
CERTIFICATIONS / COMPLIANCE	EMI: CE, RED, FCC, RCM, VCCI Safety: CB, ETL Other compliances: RoHS, ErP Lot3, Energy Star v7.0
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/EU relating to ecodesign requirements for energy-related products (ErP), (4) 2014/53/EU related to Radio and Telecommunications Terminal Equipment (RED)