

SYSTEM

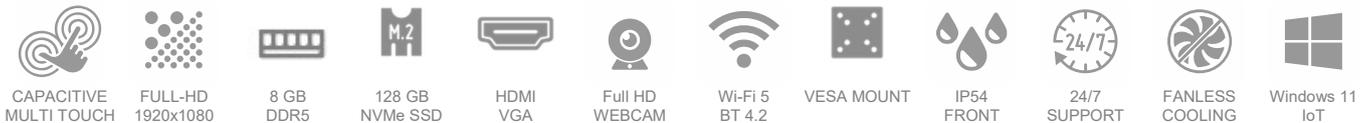
XPC all-in-one

IoT P5500PA

8 GB RAM, 128 GB M.2 SSD, Windows 11

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

This fully configured All-in-One System is powered by a Gen12 Intel ULV processor and comes with a capacitive 15.6" multi-touchscreen in Full-HD resolution, RAM, M.2 SSD and Windows 11 operating system. The modern processor architecture has a very positive effect on power consumption and computing performance. The existing WLAN function can optionally be supplemented with a 4G/5G function with up to 4 antennas. Thanks to its passive heatpipe 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.



COMMON FEATURES

- IP54 compliant front panel ■ Dimensions: 394 x 273 x 40 mm (WHD)
- Supports 24/7 Nonstop Operation ■ 100 mm VESA mount capable
- Operating temperature: 0~40 °C ■ Fanless cooling system

DISPLAY & GRAPHICS

- 39.6 cm (15.6") LC Display, 1920x1080 pixel ■ Capacitive 10-point multi-touch
- Integrated Intel UHD graphics ■ HDMI 2.0b & VGA

OPERATING SYSTEM

- Windows 11 IoT Enterprise Entry - 64-Bit

PROCESSOR

- Intel Celeron 7305 processor (Intel Core Gen. 12 "Alder Lake-U")
- Processor cores: 1x P-cores, 4x E-cores, TDP: 15W, Cache: 8 MB

RAM & STORAGE

- 8 GB DDR5-4800 SO-DIMM RAM module ■ supports max. 2x 32 GB
- 128 GB-2280 SSD card with PCIe X4/ NVMe interface
- Second M.2-2280 slot supports one SSD card (SATA) or one optional 4G/5G module (WWN04 required)

CONNECTIVITY

- HDMI 2.0b ■ D-Sub/VGA ■ 2x USB 3.2 Gen 2 ■ 4x USB 3.2 Gen 1
- 2x Serial COM ports (RS232 and RS232/422/485)
- Gigabit LAN (Intel i219V) ■ 2x Audio (for microphone & headphones)

BUILT-IN

- 2.0 Megapixel FHD webcam ■ 2x 2 W speakers ■ Electret Condenser Microphone
- WLAN-ac (Wi-Fi 5, RTL8821CE) with two internal antennas

POWER SUPPLY

- External 90W / 19V power adapter ■ DC-input supports 12V and 19V

OPTIONAL ACCESSORIES

- **WLN-M1**: WLAN kit (Intel AX200, WiFi-6) with two external antennas
- **WWN04**: 4G/5G kit with four external antennas (supports one WAN card and one Nano SIM card – not included)
- **POV21**: Robust Dual VESA Stand for one or two AIO PCs / Displays



MODELS OF THE P55U SERIES

Category	Product	Intel Processor	P-Cores / Threads	E-Cores / Threads	L3 Cache	RAM	M.2 SSD	Operating System	UPC / EAN Bar Code
Barebone	P55U	Celeron 7305	1 / 1	4 / 4	8 MB	—	—	—	887993007113
Barebone	P55U3	Core i3-1315U	2 / 4	4 / 4	10 MB	—	—	—	887993007120
System	POS P550	Celeron 7305	1 / 1	4 / 4	8 MB	8 GB	128 GB	—	4046047104420
System mit OS	IoT P5500PA	Celeron 7305	1 / 1	4 / 4	8 MB	8 GB	128 GB	Win 11 IoT	4046047104437

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 IOT P5500PA 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



Fanless and quiet

The Shuttle XPC all-in-one IOT P5500PA 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 IOT P5500PA 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 two USB connectors which need to be accessed from the front.



Connects up to two external displays

The Shuttle XPC all-in-one IOT P5500PA features two video outputs: One analog D-Sub/VGA connector and one HDMI 2.0 connector. Two separate displays can be connected in extended mode. Now add the built-in display of the IOT P5500PA and there are three displays showing different content.



VESA mount *)

The stand on the rear can easily be removed to unveil four VESA mounting screw holes (100 x 100 mm) that can be used for mounting arms and other mounting devices from a variety of manufacturers.

*) VESA mount is not included. Shuttle recommends the optional Shuttle Stand POV21.

Front and Back Panel



- | | | |
|--|-----------------------------------|-------------------------------------|
| 1. 2x Perforation for external antenna | 7. Hole with Clear CMOS button | 16. DC-input for power adapter |
| 2. 2x speakers (stereo) | 8. Microphone | 17. HDMI video output |
| 3. Hole for Kensington lock | 9. Full HD Webcam | 18. RJ45 Gigabit LAN port |
| 4. Stand | 10. LED indicates Webcam activity | 19. 2x USB 3.2 Gen 2 (10 Gbps, red) |
| (a) Stand mounting plate | 11. Touchscreen LCD display | 20. 2x USB 3.2 Gen 1 (5 Gbps, blue) |
| (b) VESA cover | 12. Power LED | 21. Audio Line-out (headphones) |
| (c) 100 x 100 mm VESA mount | 13. Hard disk LED | 22. Microphone input |
| 5. Power button | 14. 2x COM ports (Sub-D) | 23. Rubber feet |
| 6. 2x USB 3.2 Gen 1 (5 Gbps, blue) | 15. D-Sub/VGA video output | |

Product Comparison: Shuttle XPC All-in-One Models

Chassis	Display Size / Pixel / Type	Processor Type	Product Name by Intel processor-generations			Chassis Colour
			Gen. 8	Gen. 10	Gen. 12/13	
	11.6" 1366 x 768 Capacitive Multitouch	Celeron (P25N: N-Series processor)	—	P22U	P25N	Black
	15.6" 1366 x 768 Resistive Singletouch	Celeron	X50V7 X50V7L *)	X50V8	X50V9	Black, White
		Core i3	X50V7U3 X50V7U3L *)	X50V8U3	X50V9U3	Black, White
	15.6" 1920 x 1080 Capacitive Multitouch	Celeron	P51U	P52U	P55U	Black
		Core i3	P51U3	P52U3	P55U3	Black
	19.5" 1600 x 900 Capacitive Multitouch	Celeron	—	P92U	—	Black, White
		Core i3	—	P92U3	—	Black, White
		Core i5	—	P92U5	—	Black

X50V7L and **X50V7U3L** are model variants without WLAN module

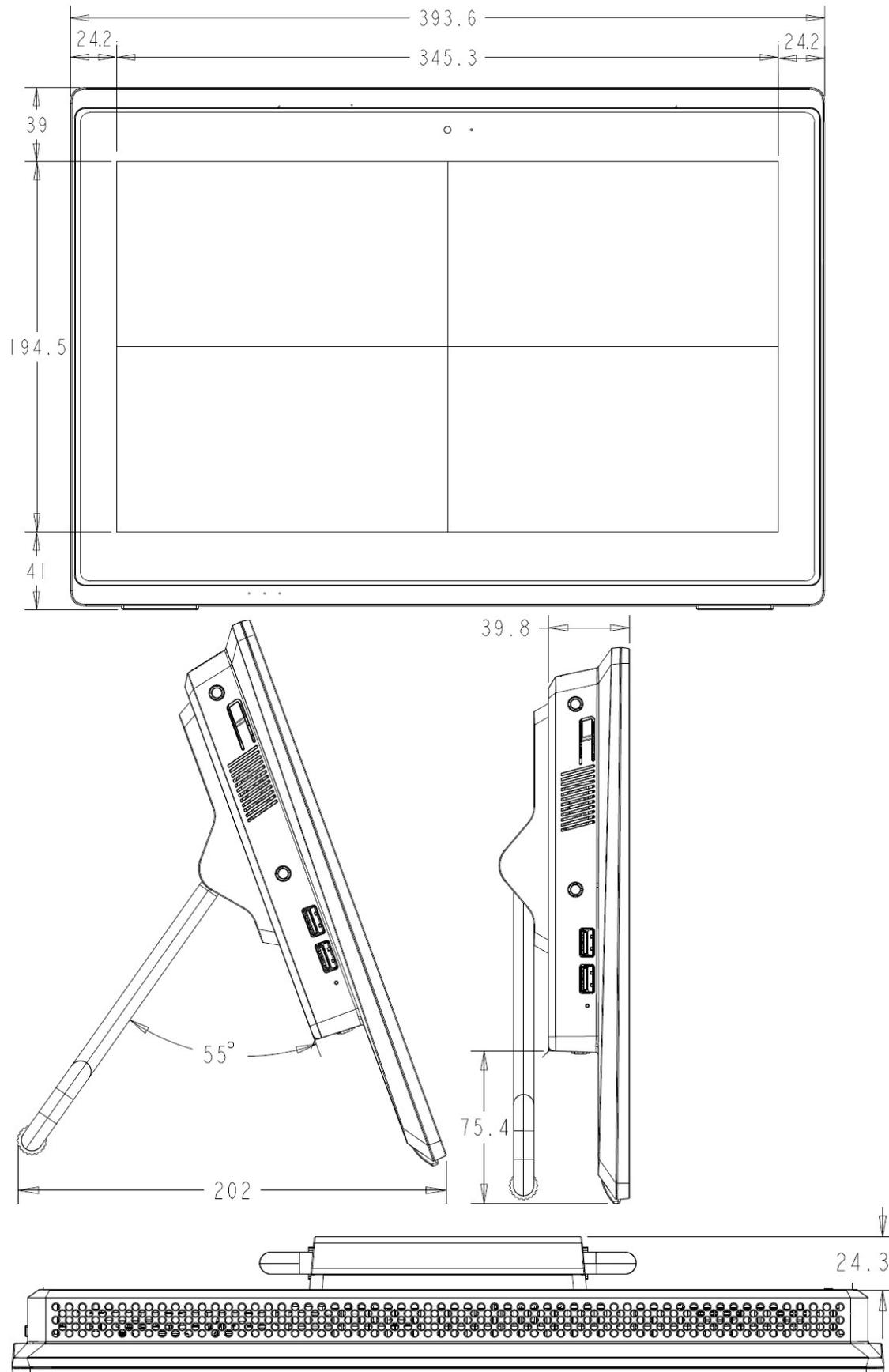
SHUTTLE XPC all-in-one System IOT P5500PA Black – SPECIFICATIONS

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.
IP54 PROTECTED	The front panel is dust-protected and protected from splashing of water according to protection class IP54.
CHASSIS	Colour: black Dimensions: 393.6 x 272.5 x 39.8 mm (W x H x D) 100 mm VESA mount with installed hinged stand Hole for optional Kensington lock (right side) Weight: 3.25 kg net, 4.5 kg gross
OPERATING SYSTEM	Windows 11 IoT Enterprise Entry - 64-bit
TOUCHSCREEN	Capacitive Touch Panel with 10-point multi-touch
15.6" DISPLAY	39.6 cm / 15.6" LC display, IPS technology Ratio: 16:9 wide-screen panel Native resolution: 1920 x 1080 = 2 Megapixel (Full HD / 1080p) Brightness: 250 cd/sqm
PROCESSOR	Model: Intel Celeron 7305 Code name: Alder Lake-U (12th generation Intel Core) Performance-cores (P-Cores): 1 core (1 thread), clock rate: 1.1 GHz Efficient-cores (E-Cores): 4 cores (4 threads), clock rate: 0.9 GHz Smart-Cache (L3): 8 MB Base Power (PL1 TDP): max. 15 W Maximum Tjunction Temperature: 100 °C System-on-a-chip architecture (SoC) with integrated memory and graphics controller BGA1700 package - directly soldered onto the mainboard Lithography: Intel 7 process (10 nm Enhanced SuperFin)
INTEGRATED GRAPHICS	Intel UHD Graphics GPU clock frequency: max. 1100 MHz Execution Units (EUs): 48
SUPPORTS TRIPLE DISPLAY	Up to three displays simultaneously Two video ports support two additional independent screens: 1) HDMI 2.0b digital audio/video port supports up to 3840 x 2160 pixels resolution at 60 Hz refresh rate (2160p60) 2) VGA / D-Sub analog video port supports 1920 x 1080 pixels resolution at 60 Hz refresh rate (1080p60) Special conditions for operation in Multi-Monitor mode: - Clone mode: all displays show the same content at 1920 x 1080 resolution - Extended mode: all displays show different content
BIOS	AMI BIOS in 32 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 Watchdog functionality Supports Firmware TPM v2.0 functionality
MEMORY	8 GB DDR5-4800 (PC5-38400) SDRAM SO-DIMM at 1.1 V Two SO-DIMM slots available, one is occupied Supports a maximum of 32 GB per DIMM, maximum total size: 64 GB M.2-2280 SSD card

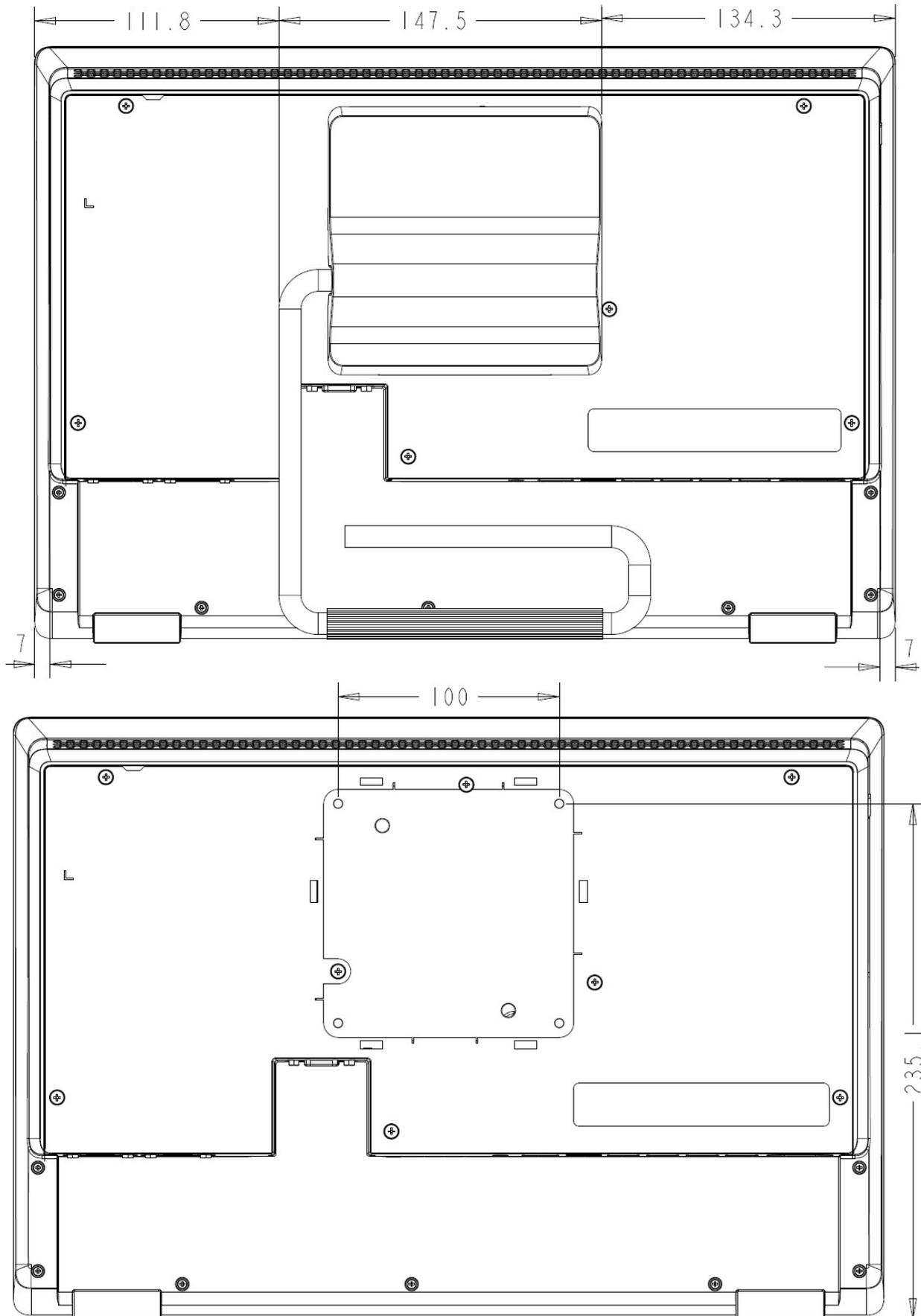
M.2 SSD CARD	<p>Equipped with 128 GB M.2-2280 SSD card with PCIe/NVMe interface. This product features two M.2-2280 Key-M slots, one is occupied.</p> <ul style="list-style-type: none"> - it supports M.2 cards with a width of 22 mm and a length of 80 mm (type 2280) - one M.2 SSD card with PCIe/NVMe interface is supported - the second M.2 SSD card must have SATA interface - the second slot can also be used for the optional WWNO4 kit to support a 4G/5G wireless network card <p>The following configurations are supported:</p> <table border="1" data-bbox="347 434 1137 593"> <thead> <tr> <th>M.2 Slot</th> <th>Interfaces</th> <th>Config 1</th> <th>Config 2</th> <th>Config 3</th> </tr> </thead> <tbody> <tr> <td>Slot 1 CN6, above</td> <td>PCIe Gen4 x4 and SATA 3.0</td> <td>M.2 SSD card (SATA)</td> <td>M.2 SSD card (PCIe/NVMe)</td> <td>M.2 SSD card (SATA)</td> </tr> <tr> <td>Slot 2 CN5, below</td> <td>PCIe Gen4 x4 and USB 3.2 Gen2 *)</td> <td>M.2 SSD card (PCIe/NVMe)</td> <td>optional WWNO4 kit</td> <td>optional WWNO4 kit</td> </tr> </tbody> </table> <p>*) the USB 3.2 interface can only be used with the Shuttle Accessory WWNO4 Two thermal pads for the M.2 SSDs are included (size: 70 x 20 x 5.5 mm).</p>	M.2 Slot	Interfaces	Config 1	Config 2	Config 3	Slot 1 CN6, above	PCIe Gen4 x4 and SATA 3.0	M.2 SSD card (SATA)	M.2 SSD card (PCIe/NVMe)	M.2 SSD card (SATA)	Slot 2 CN5, below	PCIe Gen4 x4 and USB 3.2 Gen2 *)	M.2 SSD card (PCIe/NVMe)	optional WWNO4 kit	optional WWNO4 kit
M.2 Slot	Interfaces	Config 1	Config 2	Config 3												
Slot 1 CN6, above	PCIe Gen4 x4 and SATA 3.0	M.2 SSD card (SATA)	M.2 SSD card (PCIe/NVMe)	M.2 SSD card (SATA)												
Slot 2 CN5, below	PCIe Gen4 x4 and USB 3.2 Gen2 *)	M.2 SSD card (PCIe/NVMe)	optional WWNO4 kit	optional WWNO4 kit												
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	Realtek ALC888S (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 the HDMI output.															
WIRED NETWORK	Intel i219V Ethernet Controller 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)	WLAN controller Card: Realtek RTL8821CE WLAN antennas: two internal antennas 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 4.2 on the 2.4 GHz band The M.2-2230 Key A+E slot supports PCIe Gen3 x1, USB 2.0 und CNVi															
FRONT LEDS	Power LED (blue) HDD/SSD LED (orange)															
CONNECTORS LEFT SIDE	Power button 2x USB 3.2 Gen 1 (max. 5 Gbps, blue) Hole with hidden Clear CMOS button (onboard micro switch) 2x perforation for optional external antenna Connectors right side 2x perforation for optional external antenna Hole for optional Kensington lock															
CONNECTORS BOTTOM SIDE	HDMI 2.0b (supports digital video and digital audio) VGA connector (D-Sub 15 pol., analog video) 2x USB 3.2 Gen 2 (max. 10 Gbps, red) 2x USB 3.2 Gen 1 (max. 5 Gbps, blue) Gigabit Network (LAN, RJ45, Intel i219V) 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) 2x COM/serial D-Sub (1x RS232, 1x RS232/422/485)															
HOLES FOR ANTENNAS	Opening holes for four optional antennas: The chassis features four perforated 6.5 mm holes for optional antennas mounted with an (RP-)SMA connector for wireless network such as WLAN or WWAN (e.g. 4G/5G) (see section "Optional Accessories")															

POWER ADAPTER	<p>External 90 W power adapter (fanless) Input: 100~240 V AC, 50/60 Hz, max. 1.6 A Output: 19 V DC, max. 4.74 A, max. 90 W DC cable length: ca. 170 cm AC cable length: ca. 170 cm (3-pin Micky MM C6 and Schuko earthed safety plug)</p>
DC INPUT CONNECTOR	<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>
SUPPLIED ACCESSORIES	<p>Multilingual Quick Guide Driver DVD for Windows External Power Adapter (90W / 19V) 3-pin AC Power cord with protective-earth contacts</p>
OPTIONAL ACCESSORIES	<p>1) WLAN kit WLN-M1 (Intel AX200 card + two external antennas) An 802.11ac (1T1R) WLAN function with internal antennas is already pre-installed and can be upgraded to 802.11ax (2T2R) with two external antennas with this kit.</p> <p>2) 4G/5G kit WWN04 This kit includes an adapter board for the lower M.2-2280 slot (CN5) and four external antennas. For data transmission in the mobile network, the these additional components are required - a 4G/LTE card in M.2-3042 format or a 5G card in M.2-3052 format - an activated nano SIM card</p> <p>3) Robust VESA Stand POV21: supports one or two AIO-PCs/Displays with 75x75 or 100x100 mm VESA (max. 21.5" display size and 20 kg total weight).</p>
ENVIRONMENTAL SPECIFICATIONS	<p>Operating temperature: 0~40 °C Humidity: 10~90 %, non-condensing</p>
CERTIFICATIONS / COMPLIANCE	<p>EMI: CE, UKCA, FCC, BSMI, RCM, VCCI Safety: CB (IEC 60950/62368), cTUVus (UL 62368), BSMI Other compliances: RoHS, ErP Lot3, Energy Star v8.0</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: (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 eco design requirements for energy-related products (ErP), (4) 2014/53/EU Radio Equipment Directive (RED)</p>

P55U Series – Technical Drawings



P55U Series – Technical Drawings



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