

P90U Series

ALL IN ONE PC



PROCESSOR	Intel® Kaby Lake-U Celeron® 3865U, 15W max. TDP (i3-7100U/i5-7200U optional)	
MEMORY	DDR4 SODIMM 2133 MHz slots, Supports dual channel up to 32GB (16GB x 2)	
VIDEO GRAPHICS	Intel Ultra HD 610 graphics	
VIDEO OUTPUT	HDMI 1.4b + VGA, Supports two additional displays	
AUDIO	Realtek ALC269, HD audio (Digital Audio is supported via HDMI) Line-out, MIC input	
MICROPHONE	Electret Condenser Microphone, 2W speakers x 2	
TOUCH SCREEN	19.5", 16:9 LC wide screen display, 1600 x 900 px capacitive 10-point multi-touch. Supports gloved touch w/ gloves (PV, cotton, cotton/linen)	
WIRELESS LAN	Two internal WLAN antennas pre-installed (2.4/5 GHz), 2 x perforation for optional external antennas	
ETHERNET	Intel i211 10/100/1000 MB/s operation	Supports Wake on LAN function
STORAGE INTERFACE	SATA III 6 GB/s interface, 2.5" device bay x 1	
FRONT PANEL	(1) Power LED (1) Battery LED (1) Hard Disk LED	(1) Multi-touch LCD display (1) Webcam (FHD) (1) Microphone
LEFT PANEL	(1) Power Button (2) USB 2.0 (1) Hole for optional antenna	(1) SD Card Reader (1) Clear CMOS
BACK & BOTTOM PANEL	(1) VGA port (1) HDMI 1.4b (2) COM port (2) USB 2.0 port (1) Microphone in (1) Headphone jack (1) Kensington Lock (2) USB 3.2 Gen 1 port (1) Hole for optional antenna	(1) DC-in (1) RJ45 LAN (2) Speakers LPT parallel port (optional) COM port x 2 (optional) RJ45 COM port (optional) RJ11 for cash drawer (optional) Vent
DIMENSIONS	19(L) x 12.6(W) x 1.7(H) inches	
POWER	Input: 100 - 240V AC, 50/60 Hz, max 1.6A Output: 19V, max 3.42A	65W 19V power supply
ACCESSORIES	Quick Guide 65W power adapter Screws	Driver DVD Power cord
EXPANSION SLOT	(1) M.2 MAX to 2280 Type BM	
OS SUPPORT	Windows 10, Linux 64 bit	

For more information on all products, please contact us at sales@us.shuttle.com or **626.820.9000**

P90U Series

ALL IN ONE PC

CHASSIS	Black chassis, Kensington Lock hole on back panel 100mm VESA mountable (stand can be removed to reveal screw holes) Dimensions: 19(L) x 12.6(W) x 1.7(H) inches Weight: 9.5 LBS (net) / 12.4 LBS (gross)
POWER SUPPLY	External 65W power adapter (fanless) AC input voltage: 100 - 240V, 50/60 Hz, max 1.6A Output: 19V DC, max 3.42A , max 65W
OPERATING SYSTEM	The system comes without an operating system installed. Compatibility: Windows 10, Linux 64 bit
PROCESSOR SUPPORT	Intel® Celeron® 3865U (ULV), i3-7100U/i5-7200U optional 14 nm structure, Kaby Lake-U platform (7th Gen Intel Core) CPU cores/threads: 2/2, L1/L2/L3 cache: 128 kb/512 kb/2048 kb CPU clock frequency: 1.8 GHz Max supported processor power consumption (TDP): 15W Supports 64 bit, AES-NI, VT-x (EPT), VT-d, Enhanced SpeedStep, NX bit, SSE 4.1/4.2 System on chip processor (SoC), no chipset required
FANLESS COOLING	Passive heatpipe cooling, no fan noise at all Suitable for noise sensitive environments Fanless, dust-free and virtually maintenance free
MEMORY SUPPORT	2 x 260 pin SODIMM slots Supports DDR4 2133 (PC4-17000) SDRAM at 1.2V Supports Dual Channel mode Supports a max. of 16GB per DIMM, up to 32GB total (2 x 16 GB) Supports two unbuffered DIMM module (no ECC or registered)
M.2 SLOT	M.2 2280 BM slot provides the following interfaces: PCI-Express Gen 3.0 X4 (up to 32GB/s data transfer speed), SATA v3.0 (6 GB/s) interface Supports M.2 cards with a width of 22 mm and a length of 42,60, or 80 mm. Supports M.2 SATA SSDs (with BM key) and M.2 PCI-E NVMe SSDs (with M key).
AUDIO	Realtek® ALC 269 audio codec, Digital audio supported via HDMI Two analog audio connectors (3.5 mm) on the bottom panel: 2 channel line-out (headphones), Microphone input
WIRED NETWORK	RJ45 connector supports Gigabit LAN at 10/100/1000 MB/s Intel i211 ethernet controller with MAC, PHY, PCIe interface Supports Wake on LAN (WOL) from S3, S4 modes Supports network boot by Preboot eXecution Environment (PXE)
WIRELESS NETWORK (WLAN)	Realtek RTL8821AE Connected with two internal antennas Supports 802.11 b/g/n/ac, 2.4/5 GHz band 1T1R Supports Bluetooth 4.1, 2.4 GHz (BT 4.0 for Linux)
CARD READER	Integrated card reader supports SD, SDHC, and SDXC memory flash cards
WEBCAM	Integrated full HD 2.0 Megapixel (1920 x 1080) webcam
INTEGRATED GRAPHICS	Intel Ultra HD 610 graphics, GPU clock rate: 300 - 900 MHz Supports DirectX12, full H264, H265 8/10 bit, VP8/9, VC-1, AVC hardware decoding Supports Quick Sync Video and Clear Video HD technology Two video ports support two additional independent screens: -HDMI 1.4b supports 1920 x 1080/60 Hz or 3840 x 2160/30 Hz -VGA/D-sub analog video supports 1920 x 1080/60 Hz Clone mode: all displays show the same content at 1920 x 1080 resolution Extended mode: all displays show different content

For more information on all products, please contact us at sales@us.shuttle.com or **626.820.9000**

© 2024 Shuttle Computer Group, Inc. All rights reserved. Specifications are subject to change without notice. Not responsible for any photographic or typographic errors. Photos shown may vary from actual look. Intel, the Intel logo, and Intel Core are trademarks of Intel Corporation or its subsidiaries in the US and/or other countries. ©Intel Corporation

P90U Series

ALL IN ONE PC

IP54 PROTECTED	The front panel is dust and splash water protected with protection class IP54	
24/7 NONSTOP OPERATION	Hard disk must be approved for long term operation by manufacturer, keep ventilation holes clear	
TOUCHSCREEN	19.5" LCD, 16:9 widescreen panel (1600 x 900 px), 1.44 Megapixel Capacitive touch panel with 10 point multi-touch, Stylus pen not supported Supports fingerprint input with gloves (PVC, cotton, cotton/linen)	
BIOS	AMI BIOS in 8 MB EEPROM with SPI interface Supports power-on-after-power-fail / always on Supports Wake-on-LAN from S3, S4, S5 ACPI states Supports hardware monitoring and watch dog functionality Supports Firmware TPM v2.0 functionality	
STORAGE	Supports one 2.5" SATA hard disk or SSD drive, max height 12.5 mm Supports SATA III (6 GB/s bandwidth), SATA cable pre-installed	
MICROPHONE/SPEAKERS	Front panel integrated with Electret Condenser Microphone and 2 x 2W speakers	
ONBOARD CONNECTORS	Internal USB 2.0 type A connector USB 2.0 headers x 3 (all occupied) Serial ATA connector (data/power)	eDP connector (Embedded DisplayPort) - occupied by display Connector for optional COM/LPT (POS01/PCL71)
BACK/BOTTOM CONNECTORS	(1) HDMI 1.4b port (video/audio) (1) VGA port (analog video, 15 pol) (1) RJ45 Gigabit LAN (2) COM/serial (2) USB 3.2 Gen 1 (2) USB 2.0	(1) VESA mount holes (remove stand to reveal) (1) Audio line out/headphones (1) Microphone input (3.5 mm) (1) DC input (5.5/2.5 mm) (1) LPT/parallel (PCL71/POS01) (1) Kensington Lock
SIDE CONNECTORS	(1) Power button (2) USB 3.2 Gen 1	(1) SD Card Reader (2) Perforation for optional WLAN/LTE antennas (7 mm)
INCLUDED ACCESSORIES	XPC installation guide Driver DVD Screw pack	External 65W/19V power adapter Power cord
OPTIONAL ACCESSORIES	4G antenna kit (WWN02) COM/LPT/RJ11 port adapter (PCL71/POS01) NFC module (PNFC02)	
ENVIRONMENTAL CRITERIA	Operating temperature: 0 - 40°C Ventilation holes must be kept clear	Humidity: 10 - 90% (non condensing)
CERTIFICATIONS	EMI: CE, RED, FCC, RCM, VCCI Safety: CB, ETL	Other: RoHS, Energy Star v7.0, ErP, Lot 3
	This model is classed as a technical information equipment (ITE) in class B and is intended for use in living rooms and offices. The CE mark approves 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 eco-design requirements for energy related products (ErP) (4) 2014/53/EU related to Radio and Telecommunications Terminal Equipment (RED)	

BIOS DOWNLOADS: <https://global.shuttle.com/products/productsDownload?pn=P90U>

SUPPORT LIST: <https://global.shuttle.com/products/productsSupportList?pn=P90U>

FAQ LIST: <http://global.shuttle.com/support/faq>

PRODUCT WARRANTY: <https://www.shuttlecomputers.com/policies>

For more information on all products, please contact us at sales@us.shuttle.com or 626.820.9000

© 2024 Shuttle Computer Group, Inc. All rights reserved. Specifications are subject to change without notice. Not responsible for any photographic or typographic errors. Photos shown may vary from actual look. Intel, the Intel logo, and Intel Core are trademarks of Intel Corporation or its subsidiaries in the US and/or other countries. ©Intel Corporation

P90U Series

ALL IN ONE PC

Front View and Left Side View



- | | |
|---------------------------------|------------------------------------|
| A Webcam (Full HD) | 1 Power Button |
| B Microphone | 2 Hole for optional antenna |
| C Multi-touch LCD screen | 3 Clear CMOS |
| D Power LED | 4 SD Card Reader |
| E Hard Disk LED | 5 USB 2.0 x 2 |

For more information on all products, please contact us at sales@us.shuttle.com or 626.820.9000

© 2024 Shuttle Computer Group, Inc. All rights reserved. Specifications are subject to change without notice. Not responsible for any photographic or typographic errors. Photos shown may vary from actual look. Intel, the Intel logo, and Intel Core are trademarks of Intel Corporation or its subsidiaries in the US and/or other countries. ©Intel Corporation

P90U Series

ALL IN ONE PC

Bottom View



A Kensington lock	F Hole for optional antenna	K Ventilation
B COM port x 2 (optional)	G DC-input	L USB 3.0 x 2
C LPT parallel port (optional)	H VGA video output	M HDMI video output
D RJ45 COM port (optional)	I USB 2.0 x 2	N Audio Line-out
E RJ11 (optional)	J RJ45 Gigabit LAN	O Microphone input

The stand on the back can be removed to reveal four VESA mounting screw holes.
VESA mount not included.

For more information on all products, please contact us at sales@us.shuttle.com or 626.820.9000

© 2024 Shuttle Computer Group, Inc. All rights reserved. Specifications are subject to change without notice. Not responsible for any photographic or typographic errors. Photos shown may vary from actual look. Intel, the Intel logo, and Intel Core are trademarks of Intel Corporation or its subsidiaries in the US and/or other countries. ©Intel Corporation

P90U Series

ALL IN ONE PC



EQUIPPED WITH INTEL® KABY LAKE-U

The P90U supports Intel® Kaby Lake-U platform technology with an Intel® Celeron® 3865U dual core processor (Core™ i3-10110U/i5-10210U optional). It supports DDR4 2133 MHz memory (up to 32 GB) with Intel® Ultra HD 610 graphics for 4K/Ultra HD video playback.



TOUCH SCREEN

The 19.5" multi-touch screen does not require a mouse and keyboard, making it particularly suitable for interactive kiosk and point-of-sale applications.



IP54 CERTIFIED DESIGN

The front panel of the P52U is IP54 certified for dust and splash water resistance, suitable for indoor applications where the touch screen may be exposed to humidity and the occasional splashing of water.



EXPANDABILITY PERIPHERAL CONNECTIVITY

Equipped with USB 3.2 Gen 1, USB 2.0, RS232, Intel® Gigabit LAN, SD card reader, FHD webcam, and speakers, the P90U can easily connect to other commercial devices. Optional accessories offers COM, LPT, RJ11, or NFC for expansion.



FANLESS DESIGN

With a passive thermal cooling system, the fanless design reduces power consumption required by a fan. Use with solid state disks for an operational platform completely free of noise.

For more information on all products, please contact us at sales@us.shuttle.com or **626.820.9000**

© 2024 Shuttle Computer Group, Inc. All rights reserved. Specifications are subject to change without notice. Not responsible for any photographic or typographic errors. Photos shown may vary from actual look. Intel, the Intel logo, and Intel Core are trademarks of Intel Corporation or its subsidiaries in the US and/or other countries. ©Intel Corporation

P90U Series

ALL IN ONE PC



ACCESSORY	PNFC02
DESCRIPTION	NFC module accessory kit, 13.56 MHz (frequency band) Supports NFC non-payment applications such as identification, membership rewards, and loyalty points
COMPATIBILITY	Windows 10 64 bit P90U



ACCESSORY	PCL71
DESCRIPTION	The PCL71 is compatible with the P9 and X50 series of All-in-one PCs and can provide RS232/RS422/RS485 ports (supports 0V/5V/12V) and one parallel (LPT) port on the back panel.
ITEMS INCLUDED	Printed Circuit board x 1 (PCB), screws x 4, ribbon cable x 1, multi-language quick installation guide
EXTERNAL PORT(S)	LPT x 1, COM1 (RS232/RS422/RS485) x 1, COM2 (RS232) x 1 Supports 0V/5V/12V



ACCESSORY	POS01
DESCRIPTION	The POS01 provides an additional RJ11 type DIO port (12V/24V) and four COM ports (RS232/RS422/RS485 x 1, RJ45 type RS232 x 1, RJ45 type RS232/RS422/RS485 x 1)
ITEMS INCLUDED	Printed Circuit Board (PCB), screws, power connector cable (4 pin), ribbon cable, quick guide
EXTERNAL PORT(S)	LPT x 1, COM1 (RS232/RS422/RS485 x 1), COM2 (RS232 x 1), COM RJ45 port x 2, DIO RJ11 port x 1
REMARKS	All COM ports are 5/12V compatible

For more information on all products, please contact us at sales@us.shuttle.com or 626.820.9000

© 2024 Shuttle Computer Group, Inc. All rights reserved. Specifications are subject to change without notice. Not responsible for any photographic or typographic errors. Photos shown may vary from actual look. Intel, the Intel logo, and Intel Core are trademarks of Intel Corporation or its subsidiaries in the US and/or other countries. ©Intel Corporation