Universal WLAN-ac / Bluetooth Combo Kit with Mini PCI-Express card

The Shuttle XPC Accessory WLN-P is a wireless LAN kit consisting of a Mini-PCle card, two antennas and appropriate cables. The WLN-P is intended for numerous Shuttle barebones of the XPC cube and XPC slim series to equip them with the wireless LAN standard according to IEEE 802.11n/ac at 2.4 / 5 GHz. At the same time, his combo device also supports Bluetooth 4.0. WLN-P replaces the products WLN-S and WLN-C that met the WLAN-n standard only.

Feature Highlights

Contents

- Mini PCI-Express half size WLAN card
- 2 antenna cables for XPCs slim (21 & 29 cm)
 2 antenna cables for XPCs cube (53 cm)
 Connectors: I-PEX MHF and RP-SMA male
- 2 dipole antennas (2.4 / 5 GHz band, 108 mm)
- Quick Guide (English, German, French)
- Windows driver DVD

Compatibility

Compatible with the following Shuttle products:

- Shuttle XPC slim Barebone PCs: XG41, DS61, DS81(L), DS87, DH170, XH61V, XH81(V), XH97V, XH170V,
- Shuttle XPC cube Barebone PCs: SX79R5, SZ77R5, SZ68R5, SH67H3, SH67H7, SH61R4, SH87R6, SZ87R6, SH81R4, SH97R6, SH170R6, SZ170R8

Not compatible with: DH110, XH110(V), SH110R4 – this requires the accessory WLN-M (M.2 card)

OS Support

Supports Windows 7, 8.1, 10, Linux (32- / 64-bit)

Adapter

- Model: Chicony C706E0
- Chipset: Realtek RTL8821AE
- Format: Half Size Mini-PCI-Express card
- Supports WLAN IEEE 802.11b/g/n/ac, 2.4 / 5 GHz band, 1T1R

Adapter card

- Maximum PHY data rate: 72.2 / 150 Mbps using 20 / 40 MHz bandwidth in n-mode and 433.3 Mbps using 80 MHz bandwidth in ac-mode
- Supports WPA2 (with AES) and WPA encryption
- Supports Bluetooth 4.0, 2.4 GHz band
- Operating temperature: 0~70°C

Shuttle Accessory WLN-P



Images for illustration purposes only.



Shuttle XPC slim and XPC cube with WLN-P installed



Note: What are the advantages of WLN-P over a conventional WLAN USB stick?

- 1) The Mini-PCle card sits in the case and is better protected from tampering and theft.
- 2) The integrated solution is more appealing.
- 3) For the best possible efficiency the antenna should be at least 6cm long (half a wavelength at 2.4 GHz) which is a big advantage over the USB stick.
- 4) This WLAN card is a Combo card which supports both WLAN and Bluetooth.
- 5) The transmission protocol of Mini-PCle cards is less complex as compared to USB which helps keep processor load lower.

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Shuttle WLN-P - Quick Installation Guide

Please install with reference to the following steps:

Due to safety reasons, please turn off your computer completely first and unplug it from the power supply.

- **1.** Unfasten two screws on the back panel and remove the case cover.
- 2. Use a 6mm screwdriver to puncture the perforated hole on the back panel from the outside in. Once the screwdriver passes through the perforation, carefully remove the metal tag.

If the metal tag still does not detach, carefully bend it by pushing down from the inside of the chassis.

- 3. Take the wireless kit out of its box.
- **4.** As shown, unfasten the screw first. Install the Mini PCIe card into the Mini PCIe slot and affix it with a screw.
- **5.** Take out the two <u>appropriate</u> antenna cable connectors (either 2x 53cm for XPC cube or 21+29cm for XPC slim) and remove the locks and protective sleeves. Then connect them to the Mini PCIe card.
- **6.** Install the antenna cable connectors through the appropriate openings at the back of the chassis.

When leading the cable connectors through the openings, check the socket alignment and only push horizontally.

Do NOT turn or twist the cable.

Should any difficulties occur, make sure the surface is clean. Finally, check the alignment again and carefully apply more force.

- **7.** Use the lock to affix the antenna from the outside.
- **8.** Replace the case cover and fasten its screws.
- **9.** Screw the antenna into position as pictured. Make sure it is aligned vertically to achieve the best possible signal reception.

















