

**Universal WLAN-ac / Bluetooth
Combo Kit with M.2 card**

The Shuttle XPC Accessory WLN-M is a wireless LAN kit consisting of a M.2-2230 card, two antennas and appropriate cables. The WLN-M is intended for certain 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.

**Shuttle Accessory
WLN-M
WLAN kit**



Images for illustration purposes only.

Feature Highlights	
Contents	<ul style="list-style-type: none"> • M.2-2230 (NGFF) WLAN card • 2 antenna cables for XPCs slim (21 & 29 cm) 2 antenna cables for XPCs cube (53 cm) Connectors: I-PEX4 / MHF4 and RP-SMA male • 2 dipole antennas (2.4 / 5 GHz band, 108 mm) • Quick Guide (English, German, French) • Windows driver DVD
Compatibility	<p>Compatible with the following Shuttle products:</p> <ul style="list-style-type: none"> • Shuttle XPC nano Barebone PCs: NC02U series, NC03U series, NC10U series • Shuttle XPC slim Barebone PCs: DX30, DL10J, DH02Ux, DH110(SE), DH270, DH310(S), DH310V2, DH370, DH410(S), DH470, XH110(V), XH110G, XH270, XH310(R)(V), XH410G, XC60J • Shuttle XPC cube Barebone PCs: SH110R4, SZ170R8V2, SZ270R8, SZ270R9, SH310R4(V2), SH370R6(V2)(Plus), SH370R8 • Shuttle Edge: EN01J3, EN01J4, EN01E, EN01B (in combination with Shuttle Accessory LN007)
OS Support	Supports Windows 7, 8.1, 10, Linux (32- / 64-bit)
Adapter card	<ul style="list-style-type: none"> • Model: AzureWave AW-CB209NF • Chipset: Realtek RTL8821AE • Format: M.2-2230 (NGFF) card • Supports WLAN IEEE 802.11b/g/n/ac, 2.4 / 5 GHz band, 1T1R • 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 XPC slim and XPC cube with WLN-M installed



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

- 1) The M.2 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 the PCI-Express interface is less complex as compared to USB which helps keep processor load lower.