

**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**



**Feature Highlights**

<b>Contents</b>	<ul style="list-style-type: none"> <li>• M.2-2230 (NGFF) WLAN card</li> <li>• 2 antenna cables for XPCs slim (21 &amp; 29 cm)</li> <li>• 2 antenna cables for XPCs cube (53 cm)</li> <li>• Connectors: I-PEX MHF and RP-SMA male</li> <li>• 2 dipole antennas (2.4 / 5 GHz band, 108 mm)</li> <li>• Quick Guide (English, German, French)</li> <li>• Windows driver DVD</li> </ul>
<b>Compatibility</b>	<p>Compatible with the following Shuttle products:</p> <ul style="list-style-type: none"> <li>• Shuttle XPC slim PCs: DH110(SE), DH270, XH110(V), XH110(G), XH270, XC60J</li> <li>• Shuttle XPC cube PCs: SH110R4, SZ170R8V2, SZ270R8, SZ270R9</li> </ul>
<b>OS Support</b>	<p>Supports Windows 7, 8.1, 10, Linux (32- / 64-bit)</p>
<b>Adapter card</b>	<ul style="list-style-type: none"> <li>• Model: AzureWave AW-CB209NF</li> <li>• Chipset: Realtek RTL8821AE</li> <li>• Format: M.2-2230 (NGFF) card</li> <li>• Supports WLAN IEEE 802.11b/g/n/ac, 2.4 / 5 GHz band, 1T1R</li> <li>• 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</li> <li>• Supports WPA2 (with AES) and WPA encryption</li> <li>• Supports Bluetooth 4.0, 2.4 GHz band</li> <li>• Operating temperature: 0~70°C</li> </ul>

Images for illustration purposes only.



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.

