## 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.

## Feature Highlights

Contents	<ul> <li>M.2-2230 (NGFF) WLAN card</li> <li>2 antenna cables for XPCs slim (21 &amp; 29 cm) 2 antenna cables for XPCs cube (53 cm) Connectors: I-PEX4 / MHF4 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>
Compati- bility	<ul> <li>Compatible with the following Shuttle products:</li> <li>Shuttle XPC nano Barebone PCs: NC02U series, NC03U series, NC10U series</li> <li>Shuttle XPC slim Barebone PCs: DH110(SE), DH270, DH310(S), DH310V2, DH370, XH110(V), XH110G, XH270, XH310(V), XH310R(V), XC60J, DX30, DL10J, DH02Ux</li> <li>Shuttle XPC cube Barebone PCs: SH110R4, SZ170R8V2, SZ270R8, SZ270R9, SH310R4(V2), SH370R6(V2)(Plus), SH370R8</li> </ul>
OS Support	Supports Windows 7, 8.1, 10, Linux (32- / 64-bit)
Adapter card	<ul> <li>Model: AzureWave AW-CB209NF</li> <li>Chipset: Realtek RIL8821AE</li> <li>Format: M.2-2230 (NGFF) card</li> <li>Supports WLAN IEEE 802.11b/g/n/ac, 2.4 / 5 GHz band, 111R</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>





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.

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