

## Expansion kit with 4G modem module and two antennas

this accessory kit you can equip a compatible Shuttle XPC with a built-in 4G network function. This kit includes a 4G modem module, an M.2 adapter card and two antennas with cables. All you need is an activated Nano SIM card. Please note that the M.2-2230 slot is used for this purpose and any existing WLAN cards must first be removed from the PC.

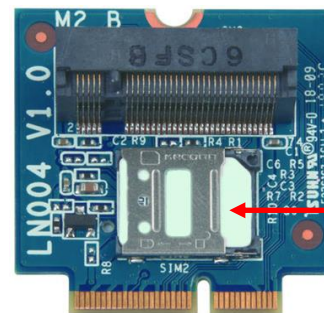
## XPC Accessory WWN11 4G Adapter Kit Plus

Shuttle Order No. POE-WWN11

Feature Highlights	
Contents	<ul style="list-style-type: none"> <li>• 4G modem-module</li> <li>• M.2 adapter card (LN004)</li> <li>• Fastening screw for 4G modem module (two-parts)</li> <li>• 2x external 4G antennas</li> <li>• 2x antenna cables with toothed lock washer and screw nut</li> <li>• Quick installation guide</li> </ul>
4G modem module	<ul style="list-style-type: none"> <li>• Model: Huawei ME906s-158 (for Europe)</li> <li>• Form factor: 30 x 42 x 2.3 mm (HWD), M.2</li> <li>• LTE data transfer rate: max. 150/50 Mbps @ 20MHz Bandwidth Cat4</li> <li>• Further information see next page.</li> </ul>
M.2 adapter card	<ul style="list-style-type: none"> <li>• Riser card for the M.2-2230 Key E slot</li> <li>• Dimensions: 30 x 30 mm</li> <li>• supports one 4G module M.2-3042 Key B</li> <li>• supports one SIM card in Nano format</li> </ul>
Two external antennas	<ul style="list-style-type: none"> <li>• LTE/4G dipole omnidirectional antenna</li> <li>• Multi-band: supports EU frequency bands (800, 1800, 2600 MHz) for GSM/UMTS/LTE and the following frequency ranges: 704~960, 1428~1575, 1720~2170, 2400~2690 MHz</li> <li>• Colour: black</li> <li>• Length overall: 135.7 mm</li> <li>• Antenna body: 114.8 mm x 20.1 mm</li> <li>• Impedance: 50 Ohm</li> <li>• Voltage Standing Wave Ratio: &lt;= 3.0</li> <li>• Radiation: Omni, Gain: 2 dBi</li> <li>• Polarisation: vertical</li> <li>• Connector: SMA</li> </ul>
Two antenna cables	<ul style="list-style-type: none"> <li>• RF cable lengths: 20 cm</li> <li>• Connectors:                             <ol style="list-style-type: none"> <li>1) SMA Pigtail female</li> <li>2) I-PEX MHF 4</li> </ol> </li> </ul>
Compatibility	<ul style="list-style-type: none"> <li>• The WWN11 accessory kit can be used for - Shuttle XPC slim DL10J</li> <li>• Supported operation system: Windows 10</li> <li>• Note that you also need a Nano SIM card</li> </ul>



**Modem Module**  
Model Huawei ME906s-158



**M.2 Adapter**

Nano SIM card (not included)



**4G Antennas with Cables**



Shuttle XPC slim DL10J with installed 4G Adapter Kit Plus

Images for illustration only.




**Specifications: M.2 LTE module Huawei ME906s-158**

ME906s-158 is a M.2 interface LTE module with Hisilicon Balong V711 chipset embedded, supporting LTE (FDD) B1/B2/B3/B5/B7/B8/B20/B28, Qual-band DC-HSPA+/HSPA+/HSPA/WCDMA B1/B2/B5/B8 for Europe and APAC network coverage, low power consumption, Global Navigation Satellite System (GNSS), and Europe carrier certifications, enabling easier and more flexible design and integration into end devices.

ME906s-158 is the ideal choice for Notebook, Tablet and Ultrabook etc.

All Huawei modules comply with the RoHS directive and Regional certification.

<b>Size</b>	Height: 30 mm Width: 42 mm Depth: 2.3 mm Weight: approx.6.0g	
<b>Form Factor</b>	75-pin M.2/NGFF	
<b>Bands</b>	LTE FDD:B1,B2,B3,B5,B7,B8,B20,B28 DC-HSPA+/HSPA+/HSPA/WCDMA:B1,B2,B5,B8 EDGE/ GPRS/GSM 1900/1800/900/850 MHz	
<b>Data Transfer Rate</b>	EDGE: DL 236.8 kbps/UL 236.8 kbps WCDMA PS: DL 384 kbps/UL 384 kbps HSPA+: DL 21.6 Mbps/UL 5.76 Mbps DC-HSPA+: DL 42 Mbps/UL 5.76 Mbps LTE FDD: DL 150 Mbps/UL 50 Mbps @20M Bandwidth Cat 4	
<b>Interface</b>	Antenna interfaces * 2 M.2 Socket Signal Control interface USB 2.0 interface high speed USIM Card interface Power supply interface	
<b>Power Supply</b>	3.135 V to 4.4 V (typical: 3.3 V)	
<b>Voice</b>	NA	
<b>Other</b>	GNSS:GPS Standalone, A-GPS, LTO, Glonass SIM Hotswap IPV6 BodySAR Tunable Antenna	
<b>Temp Range</b>	Normal Operation: -10°C to 55°C Extended Operation: -20°C to 70°C	
<b>Approvals</b>	CE, GCF, FCC, NCC, RCM, Operator TA: Vodafone, Orange, Telstra, Spark New Zealand	

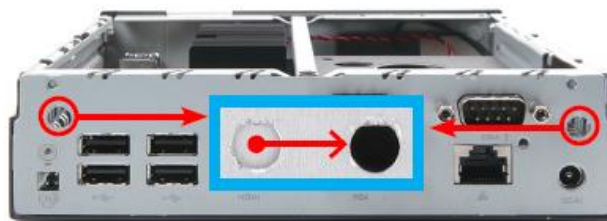
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## Quick Installation Guide for WWN1 I

**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 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.



**Please note** that the M.2-2230 slot is used for this purpose and any existing WLAN cards must first be removed from the PC.



3. When installing a nano SIM card, please push the cover to the side and lift it, then carefully insert the SIM card.



4. Please install the 4G/LTE adapter board into the M.2 E-Key slot interface as shown and affix it by tightening the screw with bolt firmly.



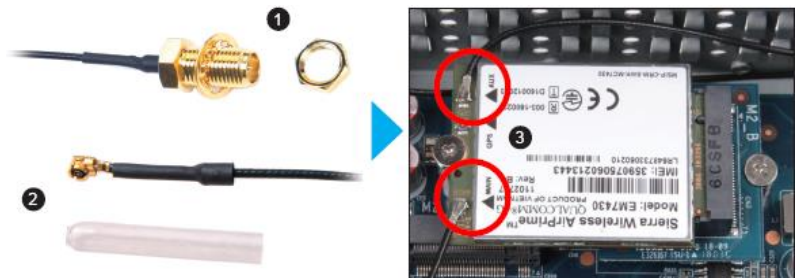
5. Please apply the bolt and tighten it firmly.



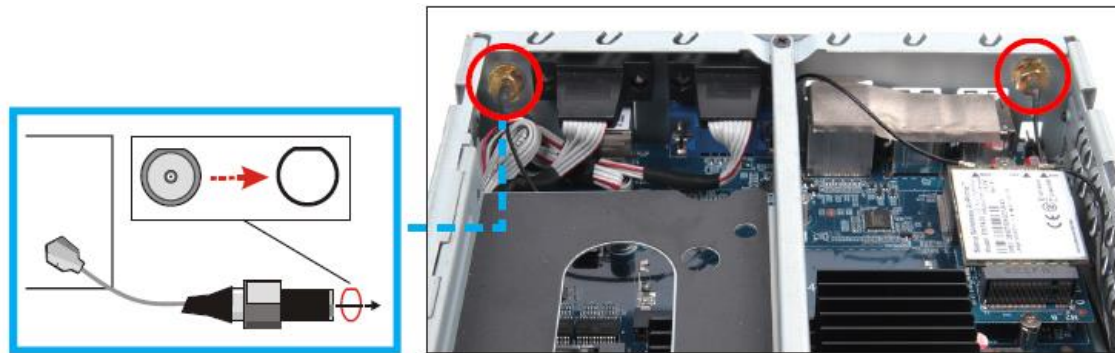
6. Please install the 4G/LTE module in the daughter-board, then tighten the screw with bolt firmly.



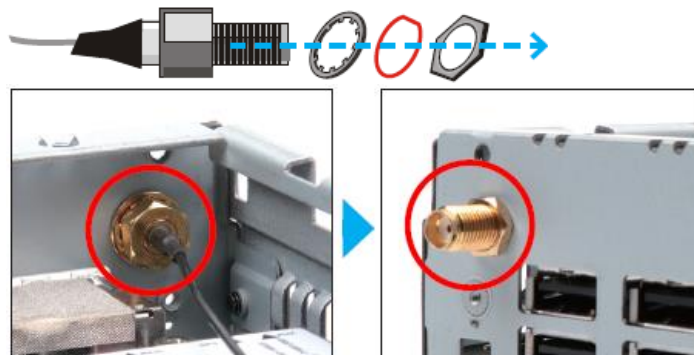
7. Take out the two antenna cable connectors and remove the locks and protective sleeves. Then connect them to the 4G/LTE module.



8. Install the antenna cable connectors through the appropriate opening at the back of the chassis. When leading the cable connector through the opening, 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.



9. Use the lock to affix the antenna from the outside.

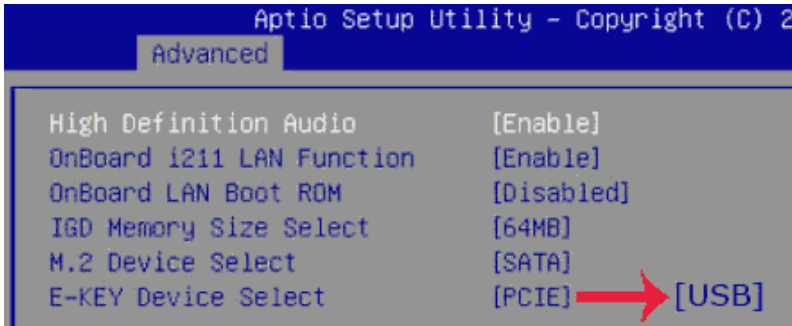


10. Replace the case cover and fasten its screws.

11. Screw the antennas into position as pictured. Make sure they are aligned vertically to achieve the best possible signal reception. Make sure the two antennas are aligned in the correct direction.



12. Check the following BIOS setting to ensure that the LTE module will be recognized correctly:  
**Advanced – Onboard Device Configuration – E-Key Device Select = USB**



13. Under Windows 10 you can find the cellular status of the 4G modem under „Network & Internet“ and „Cellular“:

