

## Expansion kit WWN04

for 4G/5G module and SIM card

### EXPANSION KIT TO INSTALL A 4G/5G CARD FOR MOBILE NETWORK

The Shuttle XPC accessory WWN04 allows compatible Shuttle XPC products to be upgraded with an 4G or 5G function for mobile network. The 4G/5G card will occupy a M.2-2280 slot. WWN04 includes an adapter card with 4 antennas and antenna cables. The required 4G card (in M.2-3042 format) or 5G card (in M.2-3052 format) and an activated Nano SIM card is not included in the scope of delivery.



#### CONTENTS

- Adapter card (Daughterboard LN008)
- Fastening screw for M.2/LTE card
- 4x antenna
- 4x antenna cable with toothed lock washer and screw nut
- Quick installation guide

#### ADAPTER CARD

The supplied adapter card has to be installed into a compatible M.2-2280 slot of the Shuttle products DS50U or X50V9 and offers the following slots:

- M.2-3042/3052 Key B combo slot for 4G/5G cards
- SIM slot supports one SIM card in Nano format

#### FOUR ANTENNAS

- 4G/5G dipole omnidirectional antenna
- Colour: black
- Length overall: ca. 17 cm
- Radiation: Omni
- Connector: SMA male

#### FOUR ANTENNA CABLES

- RF cable lengths: 15, 17, 29, 36 cm
- Connectors: SMA Pigtail female and I-PEX MHF 4

#### COMPATIBILITY

WWN04 is compatible with the following Shuttle products:

- Shuttle XPC slim DS50U series
- Shuttle XPC all-in-one X50V9 series

#### OTHER REQUIRED COMPONENTS

- SIM card in Nano format
- a 4G or 5G mobile network card in M.2 form factor:

Type	M.2 form factor	Interface	Antennas
4G/LTE card	M.2-3042 key B	USB 2.0	2
5G card	M.2-3052 key B	PCIe or USB 3.0	4

Successfully tested mobile network cards:

- Sierra EM7455 (4G, CAT 6, for Europa and North America)
- Sierra EM7430 (4G, CAT 6, for APAC)
- Huawei ME906S (4G, CAT 4, for EMEA, Australia, New Zealand)
- Quectel EM06-E (4G, CAT 6, for EMEA, Australia, Brazil)
- Quectel RM500Q-AE (5G, Sub-6 GHz, Global except China)

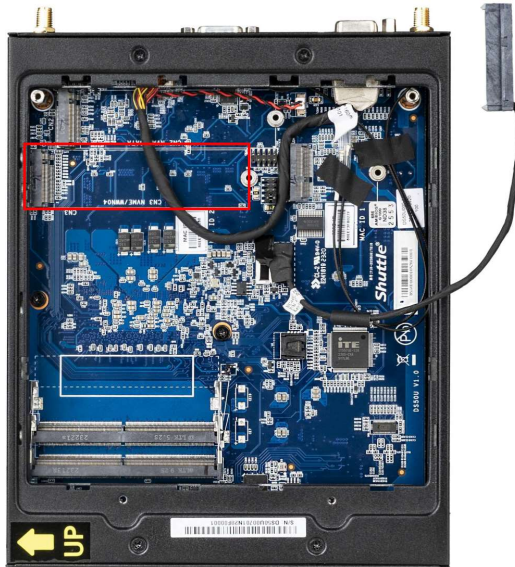


## Installation Guide

1. Locate the M.2 key slots on the motherboard of Shuttle DS50U series or X50V9 series.

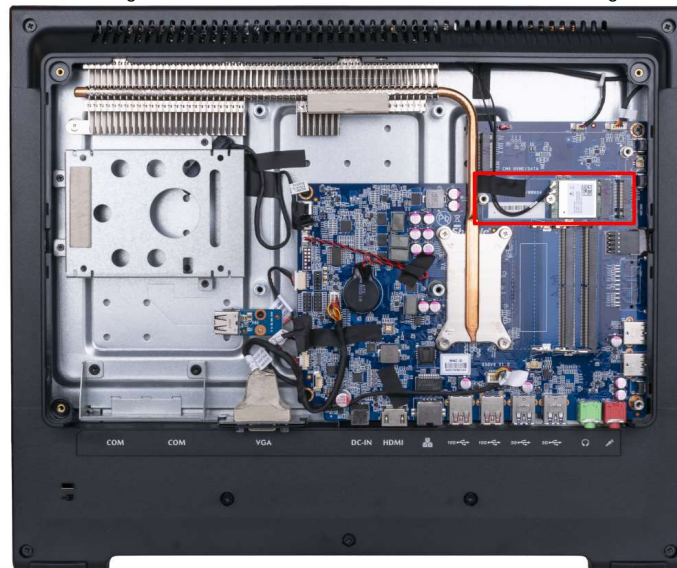
The marked location shows the M.2-2280 slot intended for the installation of WWN04 (see photo).

### Shuttle XPC slim DS50U Series:

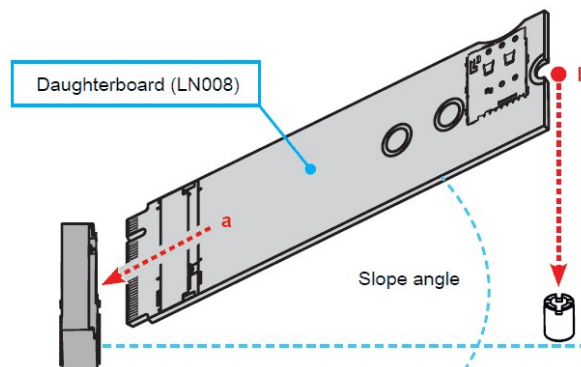


### Shuttle XPC all-in-one X50V9 Series:

Note: the daughterboard LN008 must be installed above the existing WLAN module.



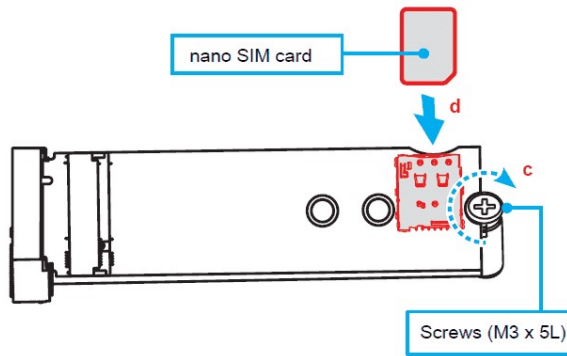
2. Install the daughterboard (LN008) into the M.2 slot and secure with the screw.



3. When installing the SIM card, please insert the SIM card into the SIM card slot and push the SIM card until it clicks into place.

When removing the SIM card, push the SIM card in to eject it from its slot and remove the SIM card.

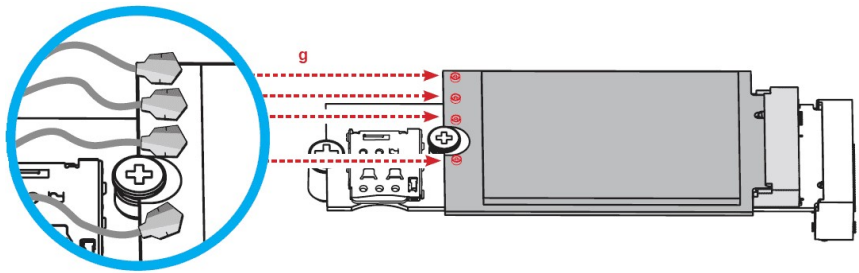
**nano SIM card: The SIM card's gold-coloured contacts facing down and its cut-off corner facing inside.**



4. Please install an 5G (or 4G) module in the relevant slot on the daughterboard (LN008), then tighten the screw with bolt firmly. As shown, connect the four antenna cables to the 5G module (two antenna cable to the 4G module).

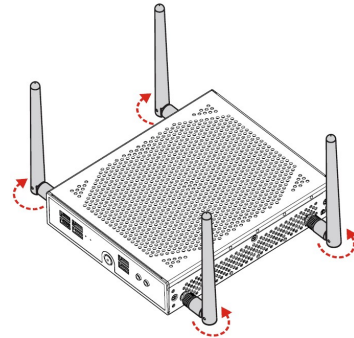
WWN04 supports the following WWAN modules for wireless network:

Card Type	M.2 form factor	Interface	Antennas
4G	M.2-3042 key B	USB 2.0	2
5G	M.2-3052 key B	PCIe or USB 3.0	4



5. Please refer to the quick guide of the Shuttle's product website to install the four antennas.

**Shuttle XPC slim DS50U Series:**



**Shuttle XPC all-in-one X50V9 Series:**

