

## Release Note

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| <b>Topic</b>  | <b>u-connectXpress Mesh Experimental v0.7.0 for NINA-B3 series</b><br>UBX-19027388 |
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| <b>Date</b>   | 10 July 2019   |

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## 1 General Information

### 1.1 Scope

This release note describes the u-connectXpress Mesh Experimental software v0.7.0 for NINA-B3 series modules. **Note that it is intended only for evaluation purposes and should not be used for production. A commercial release is planned for a later date; contact u-blox for further details.**

### 1.2 Supported hardware

#### 1.2.1 Modules upgradeable to u-connectXpress Mesh Experimental

| Product name | Ordering code | Type number      | Software version |
|--------------|---------------|------------------|------------------|
| NINA-B311    | NINA-B311-01B | NINA-B311-01B-00 | V2.0.0           |
| NINA-B312    | NINA-B312-01B | NINA-B312-01B-00 | V2.0.0           |
| NiNA-B316    | NINA-B316-01B | NINA-B316-01B-00 | V2.0.0           |
| NINA-B311    | NINA-B311-00B | NINA-B311-00B-00 | V1.0.0           |
| NINA-B312    | NINA-B312-00B | NINA-B312-00B-00 | V1.0.0           |

See the NINA-B3 System Integration manual [1] for information about the software update procedure.

### 1.3 Released software package

| File   | Description  |
|--|--|
| NINA-B3_u-connectXpress_Mesh_Experimental_v0.7.0.zip | u-connectXpress Mesh Experimental software package |

The software package is available for download from [NINA-B3 u-connect software](#).

### 1.4 New documentation

[1] Bluetooth Mesh with u-connect software Application Note, Doc. No. [UBX-19025268](#)

### 1.5 Software tools

The s-center application is available for download from [s-center evaluation software](#).

## 2 New features

### 2.1 Bluetooth Mesh

The u-connectXpress Mesh Experimental software supports regular node and relay node. New AT commands and Events with the following functionality have been introduced:

- Model creation including Pre-defined Bluetooth SIG Models
- Configuration and provisioning of Mesh nodes
- Publishing data
- Receiving status and data

For more information about using Bluetooth Mesh, see the Bluetooth Mesh with u-connect software Application Note [1].

## 3 Known limitations

| Description  | Reference   |
|--|-------------|
| AT&W and AT+CPWROFF are required even when provisioning using a smartphone   |             |
| Preferred Receiver/Transmitter PHY disregarded. The mesh stack replies with BLE_GAP_PHY_AUTO.  |             |
| MTU is fixed at 69 as set by the nRf Mesh SDK stack.   |             |
| +UFACTORY required to delete model during development.   |             |
| The mesh stack will assert if it finds unexpected meta data in its region of the flash. This will result in eternal reboots when the mesh stack is initialized. The only solution is to re-flash the device with u-connectScript Mesh software and execute AT+UBTMCLR. When the flash has been cleared, the u-connectXpress Mesh Software can be re-flashed. |             |
| Advertising output power for Bluetooth Mesh is fixed at 0dBm and can't be adjusted   |             |
| The module will reset when trying to provision or configure without a configured mesh module.  | UCS_DEV-496 |
| AT+UFACTORY does not clean the flash used by mesh. A separate AT+UBTMCLR is needed after the factory reset.  | UCS_DEV-516 |
| Rapid sending of two GET messages crashes the node. Sending two GET message in rapid succession before an answer is received (e.g. AT+UBTMPUB=0,0,8201,00) crashes the node.   | UCS_DEV-456 |

## 4 References

[1] NINA-B3 System Integration Manual, Doc. No. [UBX-17056748](#)