

Release Notes

Topic:	u-blox connectivity software v3.0.1 for NINA-B1 series
	UBX-17023794
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1 Features

u-blox connectivity software v3.0.1 for NINA-B1 series has all the features of previous software releases, plus the new features described below. For more information about using these features, see the *NINA-B1 Getting Started guide [5]* and the *u-blox Short Range AT commands manual [1]*.

1.1 Improved throughput of more than 700 kbps

Enables much faster data transfer

The data throughput has greatly increased thanks to general efficiency improvements and implementation of the Bluetooth® features LE Data Packet Length Extension (DLE) and Long Attribute Maximum Transfer Unit (Long MTU). The throughput is now over 700 kbps with DLE and Long MTU enabled, and over 190 kbps towards devices that do not support the DLE and Long MTU features. This shorter data transmission time results in a better user experience with shorter delays, a more responsive system, and lower power consumption, as the radio is active for a shorter time. For detailed throughput measurements, see the *NINA-B1 Throughput Measurements Application Note [8]*.

1.2 NFC for simplified pairing and commissioning

Simplified device selection, pairing, app selection and more, by “touching” devices together

NINA-B1 includes NFC tag capabilities, which can thus be used to “touch” NINA-B1 to a device with NFC reader capabilities to perform actions. This can be used for a range of different tasks, enabled by the new software v3.0.1:

- Select Bluetooth LE device by touching devices together
- Pair Bluetooth LE devices by touching devices together
- Launch an app on a smartphone
- Transfer a web link or other small data amount



NINA-B1 has NFC tag capabilities only (no NFC reader capability).

1.3 Out-of-band pairing

Transfer pairing information between two devices via media other than Bluetooth

With the Bluetooth security mode Out-of-band pairing, two Bluetooth devices can be paired to each other by sharing the pairing information via media other than Bluetooth. For example, this media could be NFC, or any other available media.

2 Notes and limitations

2.1 Solved issues

Description
Stability improvements for Serial Port Service and GATT.
In Extended Data Mode, the maximum number of simultaneous connections is currently limited to 2 (2 connections to peripherals or 1 connection to a peripheral and 1 connection to a central).
In security mode 2 (AT+UBTSM, Security Enabled – Just Works), the feature to enable pairing for 60 s by activating an external input signal is not supported.
Not possible to bond when remote device uses resolvable Bluetooth address.
Not possible to connect ACL link (AT+UBTACL) to remote peripheral when in simultaneous central and peripheral role (AT+UBTLE).
Incorrect behavior when enabling notifications / indications (AT+UBTGWC).
Create characteristic with length more than 229 fails (AT+UBTGCHA).
If the link key is removed in the remote device, then NINA-B1 will hang in connecting state.

2.2 Known issues

Description
The AT command <i>Get RSSI +UBTRSS</i> can only be used to retrieve the RSSI value from a single remote device.
In Extended Data Mode, the BLUE signal pin is not supported.
NFC enabled when NFC URI tag written (AT+UNFCURI).
Cannot do factory reset using external input signals if the UART is not opened on the host side.
Name discovery fails (AT+UBTND). Work-around is to use Discovery (AT+UBTD).
Changing escape character (ATS2) requires a store and reset when Configuration Over Air (AT+UDSF, allow remote configuration) is enabled.
In Simultaneous Peripheral and Central role (AT+UBTLE role 3), the maximum number of simultaneous connections is limited to 7.

3 Released software package

The released software package is NINA-B11X_3.0.1.zip and is available via www.u-blox.com [7].

3.1 Software upgrade instructions

See the *NINA-B1 series System Integration Manual* [4] for instructions on how to upgrade your module.

4 Tools

4.1 s-center

The s-center PC application is an easy-to-use graphical user interface that supports software upgrade and the AT commands to configure and control the module.

For NINA-B1 with u-blox connectivity software v3.0.1, s-center v4.1 or later is recommended.

5 Related documentation

- [1] [u-blox Short Range Modules AT Commands Manual](#), UBX-14044127
- [2] [u-blox Extended Data Mode Protocol Specification](#), UBX-14044126
- [3] [NINA-B1 Data Sheet](#), UBX-15019243
- [4] [NINA-B1 System Integration Manual](#), UBX-15026175
- [5] [NINA-B1 Getting Started](#), UBX-16009942
- [6] [EVK-NINA-B1 User Guide](#), UBX-15028120
- [7] [NINA-B1 u-blox connectivity software v3.0.1 zip package](#)
- [8] [NINA-B1 Throughput Measurements Application Note](#), UBX-17023548