

Release Note

Topic	u-blox connectivity software v1.0.0 for ANNA-B112 UBX-18057849
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Date	24 October 2018

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1 General Information

1.1 Scope

This release note describes the u-blox connectivity software v1.0.0 for ANNA-B112.

1.2 Supported hardware

Product name	Ordering code	Type number
ANNA-B112	ANNA-B112-00B	ANNA-B112-00B-00

It is possible to update ANNA-B112 Engineering Samples (ES) with the u-blox connectivity software v1.0.0 for test purposes. See the [ANNA-B112 System Integration manual](#) for information about the software update procedure.

1.3 Released software package

File	Description
ANNA-B112_1.0.0.zip	u-blox connectivity software v1.0.0 package

The software package is available for download from www.u-blox.com.

1.4 Updated documentation

Document	Document ID
ANNA-B112 Data Sheet	UBX-18011707
ANNA-B112 System Integration Manual	UBX-18009821
ANNA-B112 Product Summary	UBX-18006008
ANNA-B112 Getting Started	UBX-18020387
EVK-ANNA-B112 User Guide	UBX-18018539
EVK-ANNA-B112 Quick Start	UBX-18019809
u-blox Short Range Modules AT Commands Manual	UBX-14044127

The documents are available for download from www.u-blox.com

1.5 Released software tools

The s-center version 4.6.2 evaluation software with support for ANNA-B112 has been released and is available for download from www.u-blox.com.

2 Supported features

This section describes the main features supported in the u-blox connectivity software v1.0.0 for ANNA-B112.

2.1 GATT server and client

ANNA-B112 supports the Generic Attribute Profile (GATT) in the Bluetooth Low Energy specification. It can act as both GATT server and GATT client simultaneously.

2.2 Peripheral and central roles

ANNA-B112 can have both peripheral and central roles. A module can be peripheral and central simultaneously.

2.3 Serial Port Service

Serial Port Service (SPS) is implemented according to [u-blox Low Energy Serial Port Service](#). SPS is implemented on top of GATT and provides a serial data connection over Bluetooth Low Energy similar to the Serial Port Profile (SPP) in Bluetooth BR/EDR. u-blox provides example code for implementation of the SPS protocol in Android and iOS devices.

2.4 2 Mbps link speed

Support for the physical layer for up to 2 Mbps link speed introduced in the Bluetooth 5.0 specification is included.

2.5 Extended Data Mode

When setting the module to data mode, multiple connections can be configured. Extended Data Mode (EDM) allows individual control of each individual connection. This makes it possible to transmit data to one specific remote device and to know from what remote device the data is received.

2.6 Configuration over air

With configuration over air enabled, the module accepts the AT commands sent from a remote device connected via Bluetooth low energy.

2.7 GPIO control

GPIO pins available on the ANNA-B112 module can be configured, written to, and read from using an AT command from the host over the UART interface. By using the configuration over air functionality, the ANNA-B112 GPIO pins can be controlled also from a remote device using Bluetooth low energy.

2.8 UART host interface

For communication with the host system, a UART interface is implemented. Baud rate up to 1 000 000 is supported.

2.9 NFC

NFC tag capabilities are included, which enables features such as simplified pairing or initiation of an activity in the device.

2.10 Out-of-band pairing

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.

3 Notes and limitations

3.1 Known limitations

Description	Reference
The command to read multiple GATT characteristics (AT+UBTGRM) is not functional and returns an error response.	TE_NINA_NRF_FW-254
The disconnect command (AT+UDCPC=1) is not functional until reception of the confirm event of the connect command. The workaround is to wait for the connection confirmation before sending the disconnect command.	TE_NINA_NRF_FW-284
In EDM mode, command response lines may be lost due to the internal event buffer being full, for example when listing all bonded devices using AT+UBTBD the list may be incomplete due to lines being lost.	TE_NINA_NRF_FW-422
When using the external pairing functionality (pairing using SWITCH_0, see AT+UBTSM), the LED flashes orange (GPIO pins for red and green LEDs are active) for 60 seconds even after successful bond.	TE_NINA_NRF_FW-426
In EDM mode, when a central node connects to a remote peripheral device, the wrong frame size is reported in the EDM Connect Event, (0x0011). To get the correct size, use the Resend Connect Events (0x0056) command.	TE_NINA_NRF_FW-531
Incoming connection from remote default peer is rejected. The issue is seen in the following setup: 1. On device A, set device B as default peer 2. Connect from device B to device A using UDCP or default peer configuration	TE_NINA_NRF_FW-533
The un-bond command (AT+UBTUB) is not functional until reception of the confirm event of the bonding command. The workaround is to wait for the bonding confirmation before sending the un-bond command.	TE_NINA_NRF_FW-677
A high load of transmitted data with UART flow control disabled, for example using an SPS connection, may make the module disconnect.	TE_NINA_NRF_FW-702
The response to "Maximum allowed output power" (AT+UBTCFG param_tag 4) is the unsigned representation of the configured value.	TE_NINA_NRF_FW-748