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With the current firmware you can use this plugin to transmit classic messages or you can also use it with NMEA2000 protocol.

The module has the following connections:

- XBee socket. This module is compatible with all our products with XBee sockets (simpleRTK2B, simpleRTK3B, simpleRTK4, ...).
- microUSB connector. We use it to update its parameters or to load new firmware. Notice that this connection does not power the CANBus GNSS Master, you always need to plug it into a powered XBee socket.
- DB9 connector. You need to plug a cable to it. Connect the other end to your CANBus network.
- Terminal resistor jumper. Make sure to set the terminal resistor jumper like this if your CANbus network has already a terminal resistor (if not leave it in the default position):



- BOOT button. Use it to load firmware (see instructions below).
- LEDs. Blue LED shows if the CANBus GNSS Master board is powered on.

To install this device, simply plug it into a GNSS receiver with XBee socket and power the receiver. In normal operation there is no need to use the microUSB connector on it (we use it only to configure it).

Make sure your GNSS receiver is configured to send data in NMEA format at the proper UART port at 115200bps.



1. Plug
2. Connect the microUSB cable to your CANBus GNSS Master and your PC, a flash drive will appear
3. Fill the form below with your desired output
4. Press the Generate parameter file
5. Drag and drop the generated file on your CANBus GNSS Master flash drive.
Make sure the name is can_settings.toml
6. Wait 10 seconds and restart your CANBus GNSS Master device by pressing the XBEE RESET button on your receiver(not the BOOT button on your CANBus GNSS Master). If you have a simpleRTK2B Lite, unplug the USB cable and replug it.

You can also read previous generated files by pressing the Read parameter file button.

Configure your GNSS receiver: Your GNSS receiver UART connected to the CANBus GNSS Master plugin must be configured at 921600bps in order to work properly.

Make sure the following NMEA messages are enabled: GGA , RMC , VTG , ROT , HDT .

For NMEA2000, use 10Hz frequency.

If some messages are not available on your receiver the related CAN messages won't be sent.

General settings

CAN bus speed:

Classic CAN messages settings

? Enable Classic CAN messages

NMEA2000 settings

? Enable NMEA2000

Generate parameter file

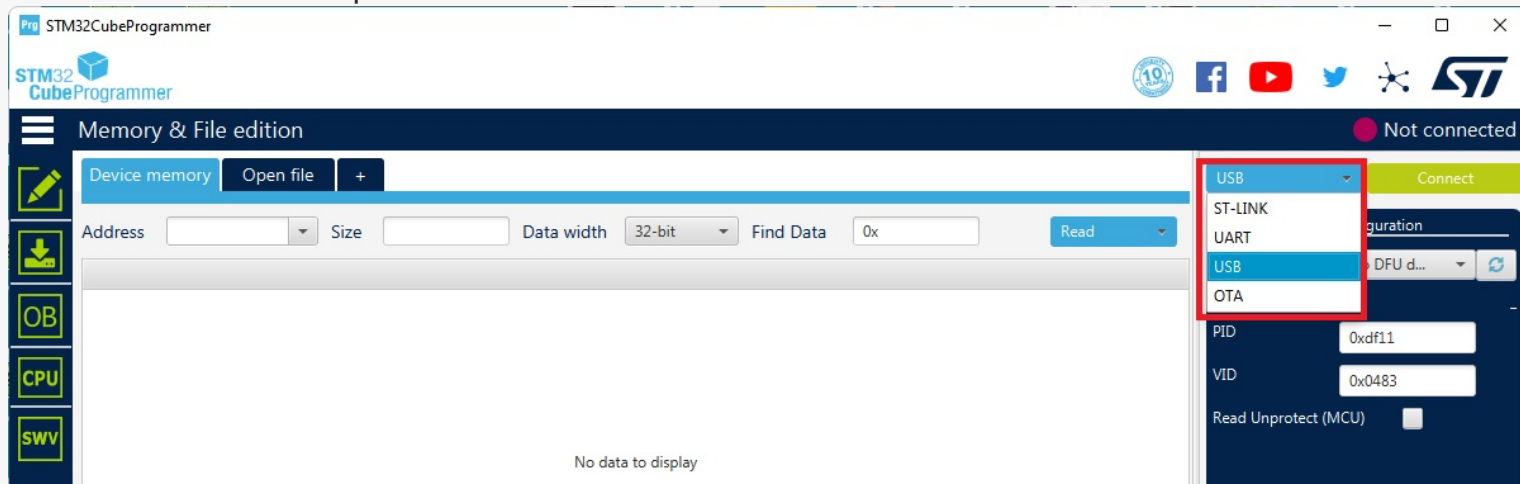
Read parameter file



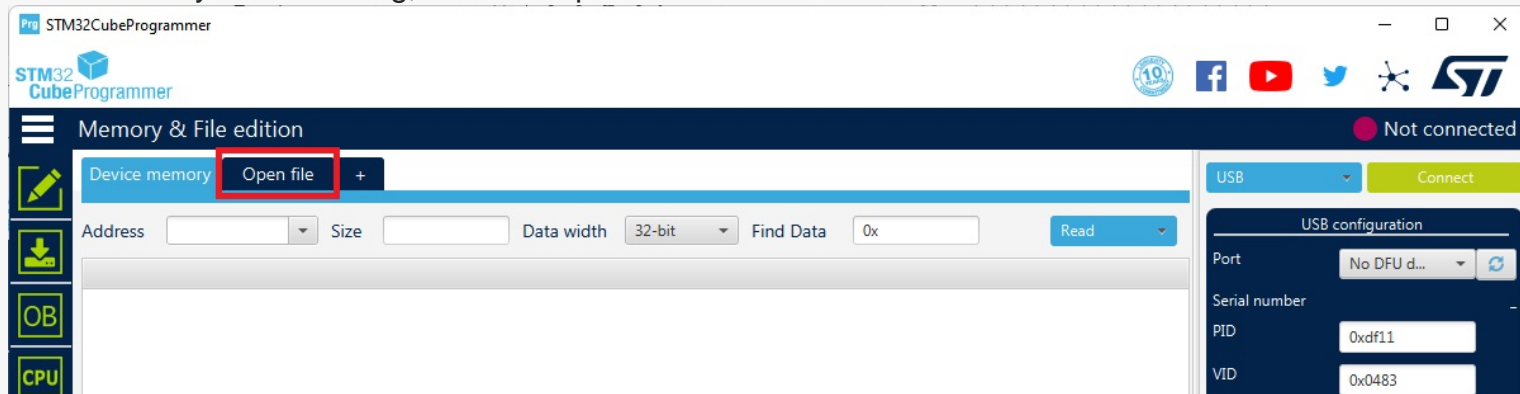
- CAI
- USB-C Carrier Board for XBee Plugins
- Latest CANBus GNSS Master firmware (zipped), you can find it below.
Once unzipped, it contains a firmware.hex file and a main.mpy file.
- STM32 Cube Programmer, you can [download for free here \(Windows Version\)](#)

Please follow these steps:

1. Plug your CANBus GNSS Master to the USB-C Carrier Board for XBee Plugins
2. Make sure all cables are unplugged
3. Press and keep pressed the CANBus GNSS Master button
4. Connect the USB cable to the CANBus GNSS Master and to your computer
5. Connect the USB cable to the USB-C Carrier Board for XBee Plugins and to your computer
6. You can now release the CANBus GNSS Master button
7. Open STM32 Cube Programmer
8. Select USB from the dropdown menu



9. Click the refresh icon and wait until the port updates and shows a number
10. Click the CONNECT button
11. Go to Erasing & Programming and click on Full chip erase
12. Go to Memory & File Editing, click the Open File tab



13. Browse and select your firmware .hex file

14. Click the Download button and wait until it completes

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2026-05-05 - FW V1.1.1

* Fix: ISO address claim message + PGN129026

2026-05-04 - FW V1.1.0

* NMEA2000: new PGN128275 (odometer, u-blox receivers only)

* NMEA2000: new PGN129033 message

* Classic CAN: new messages for INSPVAXA content (Unicore UM981 only)

2026-03-26 - FW V1.0.0

* First release