Getting Started Guide
Acconeer XM126
IoT Module Evaluation Kit

Nov 2023

Installation guide

The XM126 is delivered non-flashed. This installation quick guide will show you how to get the Acconeer XM126 Exploration Tool up and running. For a hands-on instruction video, please visit Acconeer's YouTube channel.
https://youtu.be/MxdJxe9-ipw

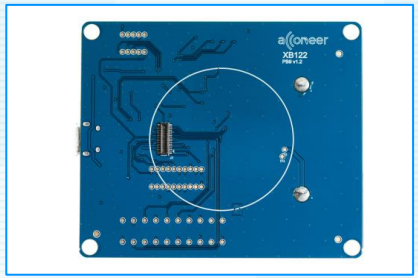
Preparing the HW Installation

To complete a successful installation of Acconeer EVK, the following HW components will be required:

XM126 Module

+

XB122 Breakout Board



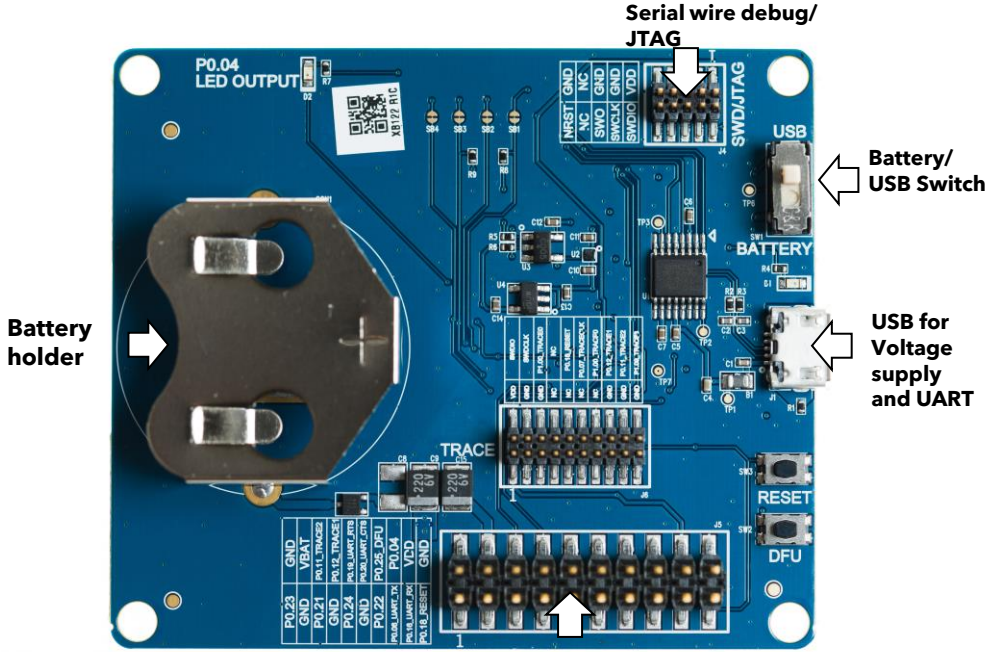
Additionally*:

- USB Micro Cable for connection to PC

* Not provided by Acconeer.

HW Overview

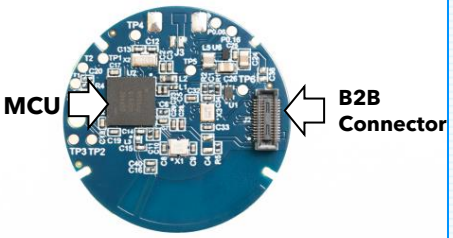
XB122 (Breakout board, back side)



XM126

Front

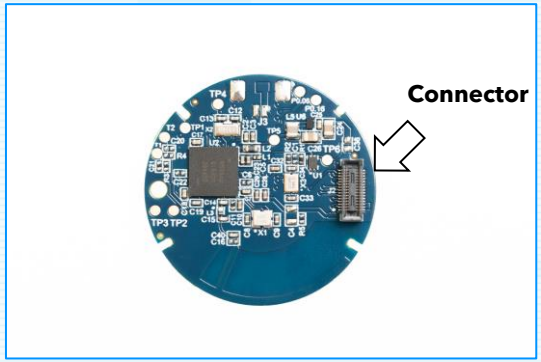
Back

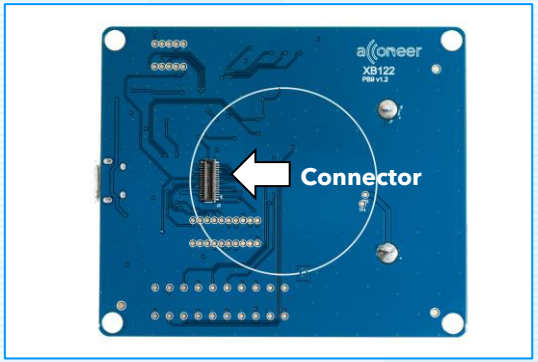


4

Assemble the HW XM126/XB122

- Connect the XM126 Module to the XB122 Breakout Board
- Connect the USB cable to USB slot
- End result in the rightmost picture





Preparing the SW installation

The following applications will be required to complete an installation. Also, they will be very useful when working with the Radar Sensor Exploration Tool. The Exploration Tool will let you view the data stream in real time. In order to run the Tool you need to install the Exploration Server firmware on the module. Please download and install:

- Acconeer *acconeer_xm125_exploration_server_a121*: Available from https://developer.acconeer.com/
- Acconeer Exploration tool: https://github.com/acconeer/acconeer-python-exploration

For all users (Windows, Linux):

- Python: Available from https://python.org/downloads version 3.11.5 is recommended.

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- Acconeer *acconeer_xm126_exploration_server_a121*: Available from https://developer.acconeer.com/
- Acconeer Exploration tool: https://github.com/acconeer/acconeer-python-exploration

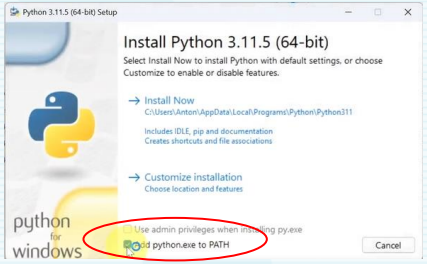
For all users (Windows, Linux):

- Python: Available from https://python.org/downloads version 3.11.5 is recommended.
- COM port drivers: VCP Drivers - FTDI (ftdichip.com)

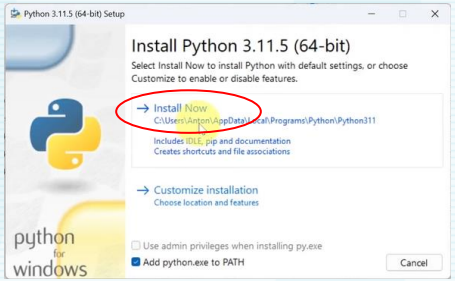
Installing Python

- Start the installer file that you downloaded from Python.
- Make sure the Add Python to PATH option is selected. (Pic 1)
- Click Install Now. No need for a customized Installation. (Pic 2)
- Close once the installation is completed. (Pic 3)

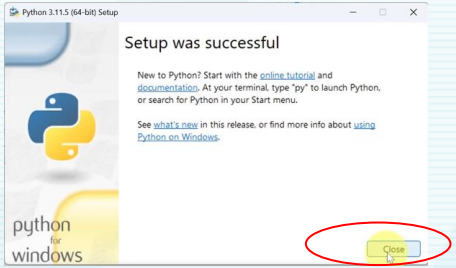
1.



2.

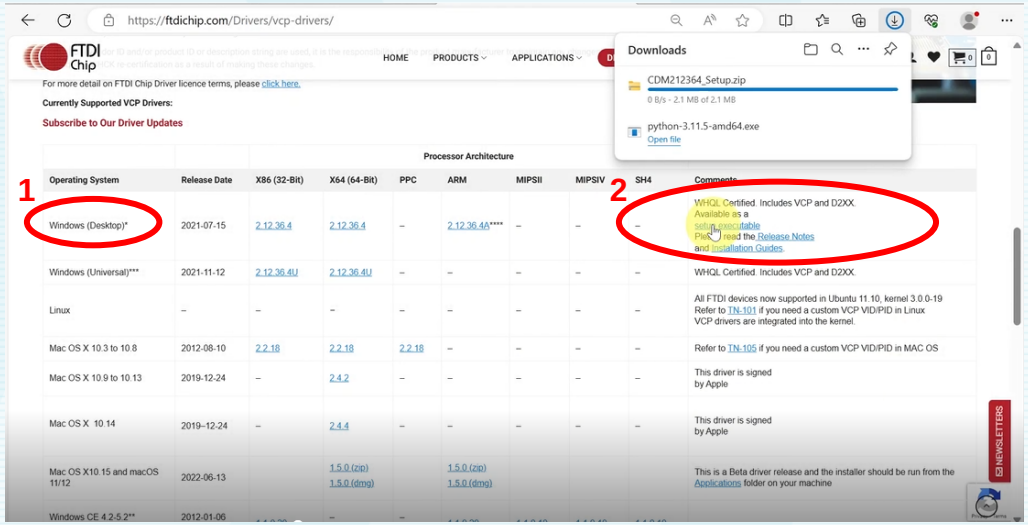


3.



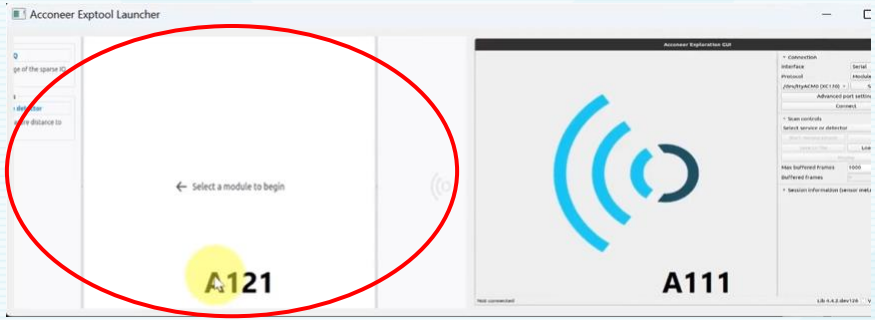
Installing COM-Port Drivers

- Go to [VCP Drivers - FTDI (ftdichip.com)]
- Select Windows Desktop (1) and Click Setup Executable (2)
- Extract the file and follow the installation instructions.

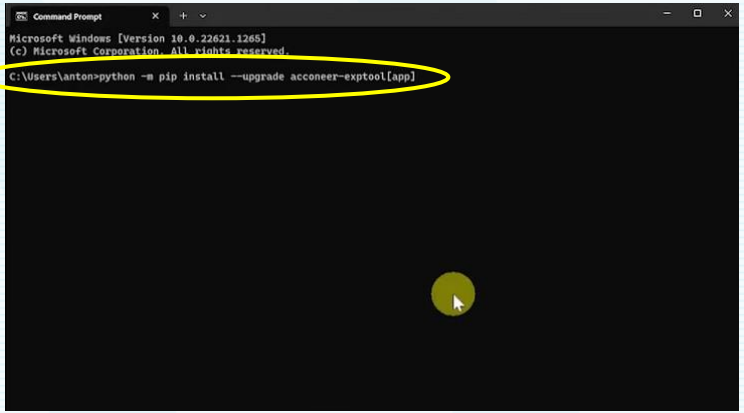


Installing Exploration Tool

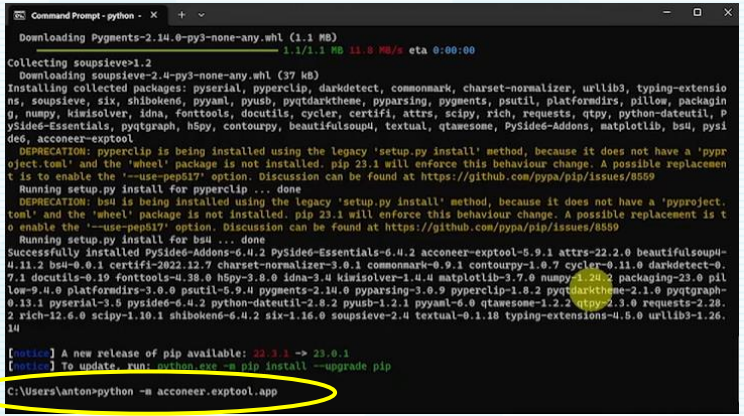
- 1. In Command Prompt: Run the command: *python -m pip install --upgrade acconeer-exptool[app]*
- 2. You can then start the Exploration Tool by running the following command: *python -m acconeer.exptool.app*
- Select the sensor version you are running. A121 in this case. See next page.



1

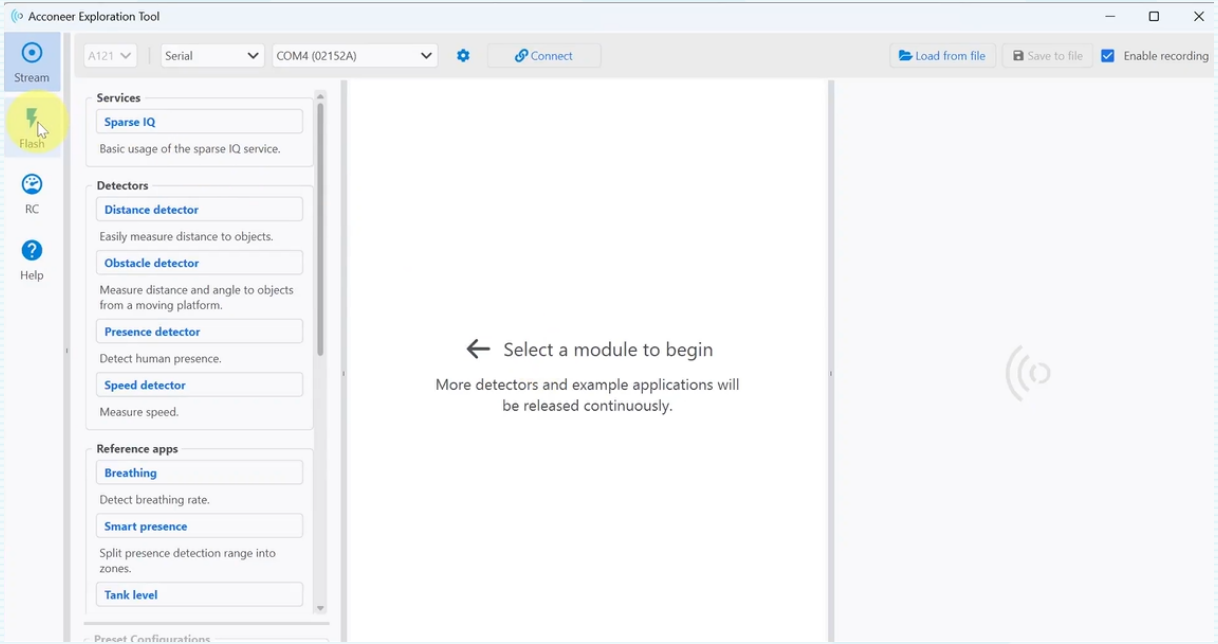


2



Installing Exploration Tool

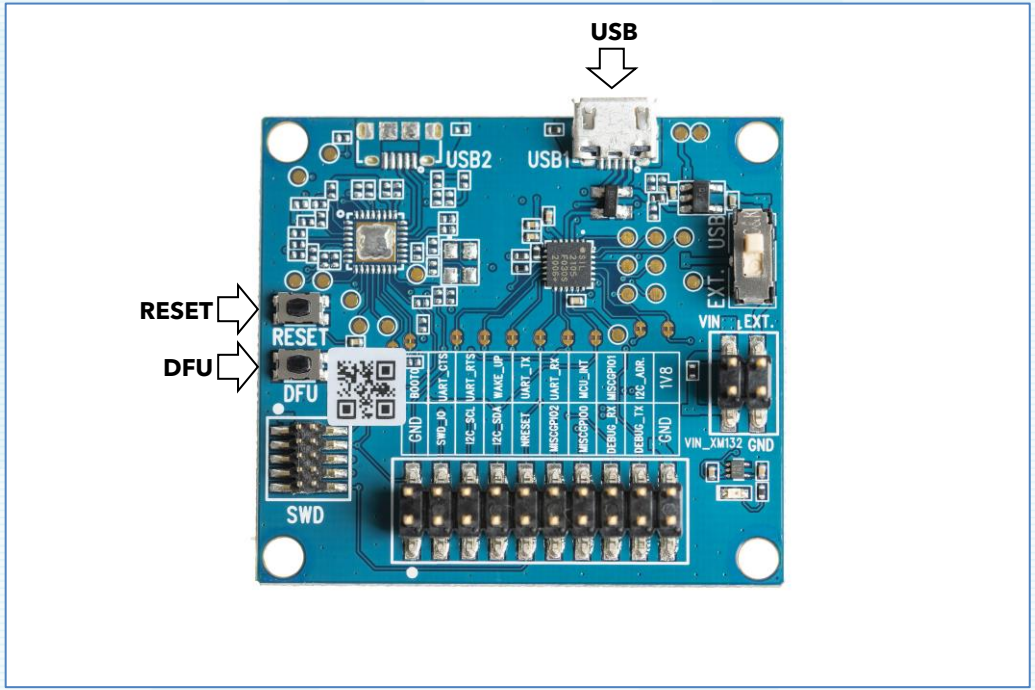
- The Exploration Tool will open like the image below



Start Boot Mode (DFU Mode) for flashing

1. Make sure your EVK is connected to the PC with a USB cable
2. Press the DFU-button and hold it
3. Press the RESET-button and hold it
4. Release the RESET-button
5. Release the DFU-button

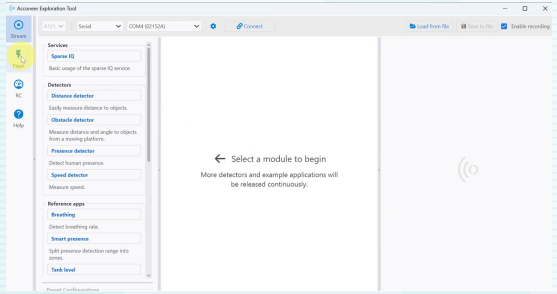
Now the module is in DFU mode and ready to be flashed. You will be prompted about this step if forgotten or failed.



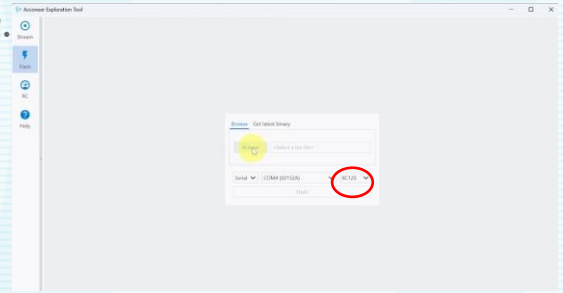
Flashing

1. Unzip the XM126 Exploration Server that you downloaded earlier (page 5)
2. Go to the Exploration Tool Window and Click Flash (#1 top image)
3. Click Browse (#2) and locate and select your Exploration Server binary file.
4. Select the correct HW in the dropdown menu circled in red (See Image 2)
5. Click the flash button (#3). Done!

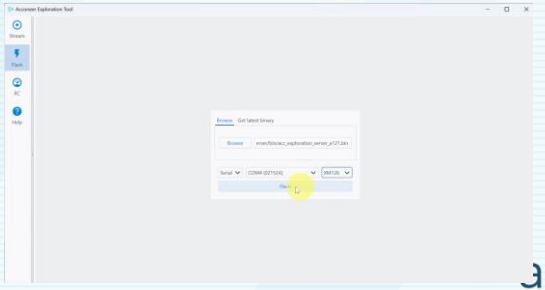
1.



2.



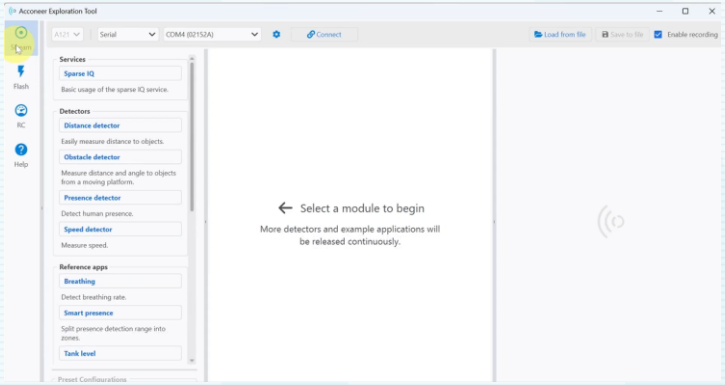
3.



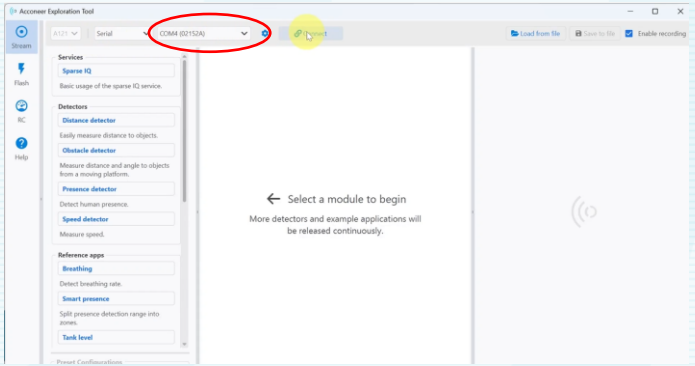
Flashing

6. Once flashing is complete. Click Stream (#1)
7. Select the correct COM port (#2) circled in red
8. Click Connect (#2)

1.

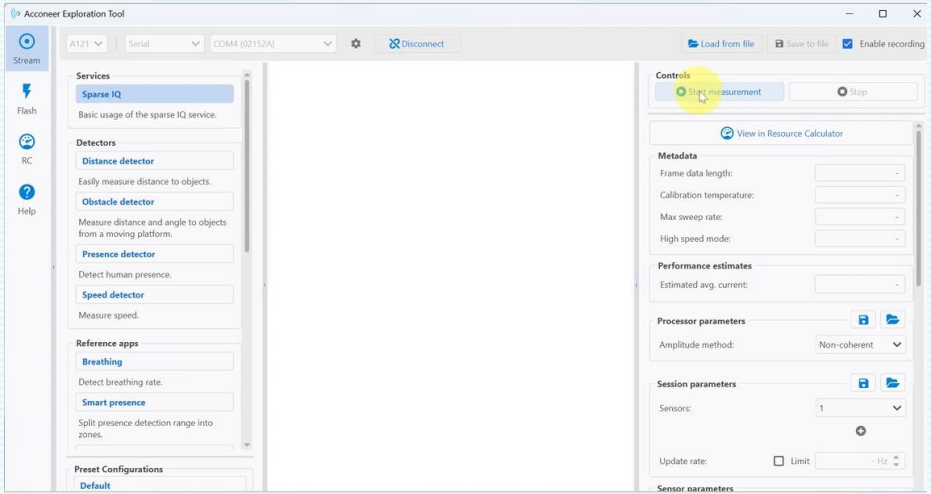


2.



Run the Exploration Tool

- You can now select any of the Detectors or Applications from the menu to the left. If you simply want to familiarize yourself with our sensor you can start by selecting the Sparse IQ service which provides a raw data stream.
- You start the measurement by clicking ”Start measurement”

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