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Getting Started Guide Acconeer XE123/124 Entry+ Module Evaluation Kit

Jan 2023

Installation guide

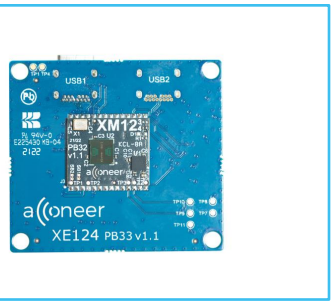
The XE124 is delivered non-flashed. This installation quick guide will show you how to get the Acconeer XE124 Module Server up and running. For a hands-on instruction video, please visit Acconeer channel. Getting started with Acconeer A111 EVKs – YouTube

In this guide we will refer to XE124 but everything is also applicable for XE123.

Preparing the HW Installation

The Evaluation kit for Our Entry+ Module (XM124) differs from previous EVK in that it comes already soldered onto the breakout board. All you need is the USB-C cable.

XE124 EVK



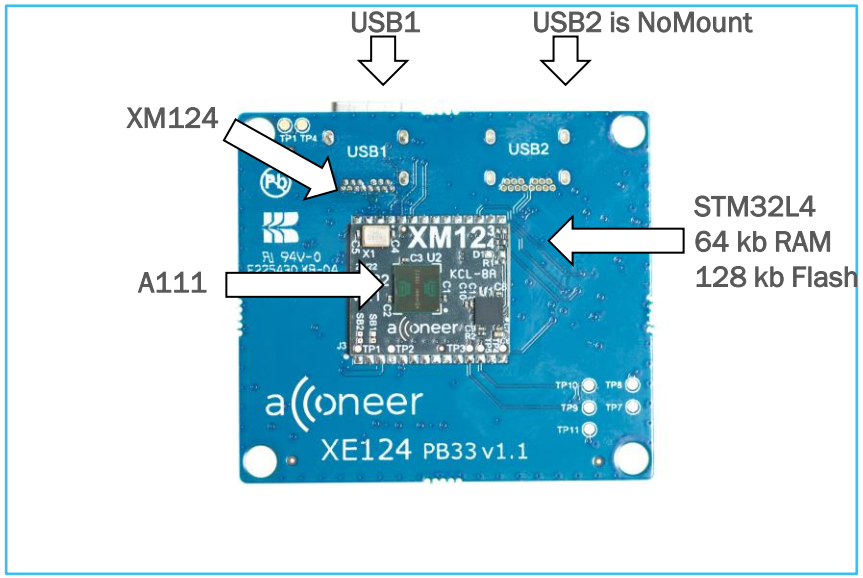
Additionally*:

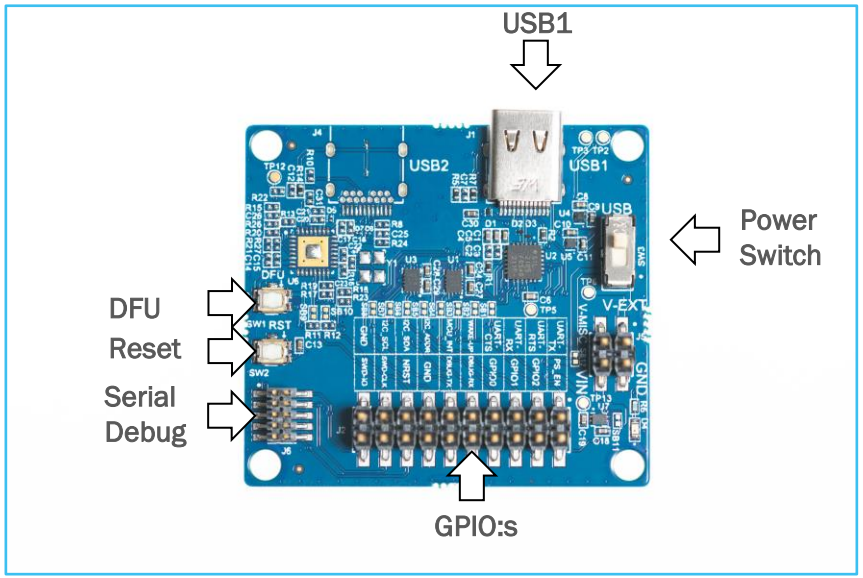
- USB-C Cable for connection to PC

* Not provided by Acconeer.

HW Overview

XE124 EVK Front and Back Side





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 Module Server. Please download and install:

- Acconeer Module SW Image for XM124: Available from https://developer.acconeer.com/
- Acconeer Exploration tool: https://github.com/acconeer/acconeer-python-exploration

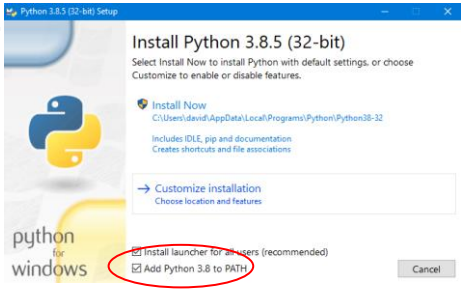
For all users (Windows, Linux):

- Python: Available from https://python.org/downloads

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.



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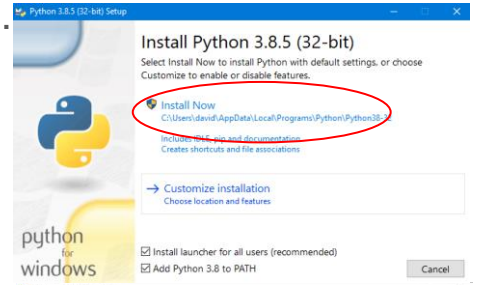

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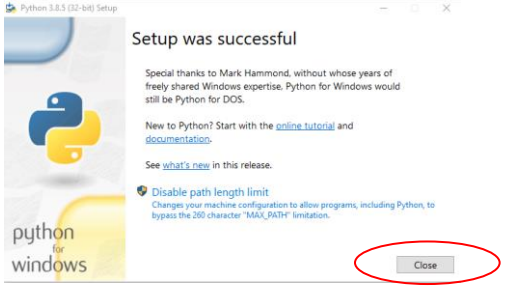
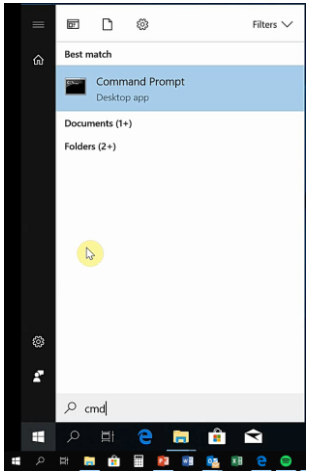


Installing Exploration tool

- Unzip the file downloaded from Acconeer. Acconeer-python-exploration
- Start windows command prompt. (Pic 1) You can always find it by searching for “cmd”.
- In the command prompt, change the directory to where you unzipped the exploration tool by typing the command *cd* followed by the path to the folder. (Pic 2)

1



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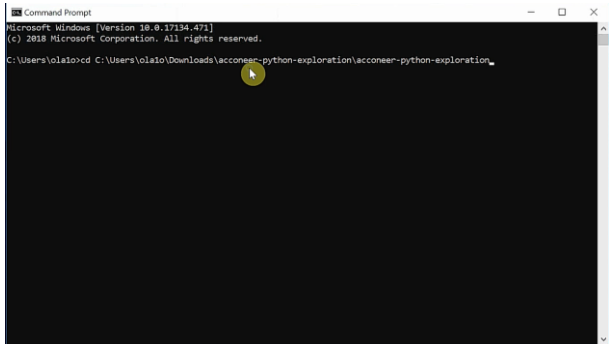
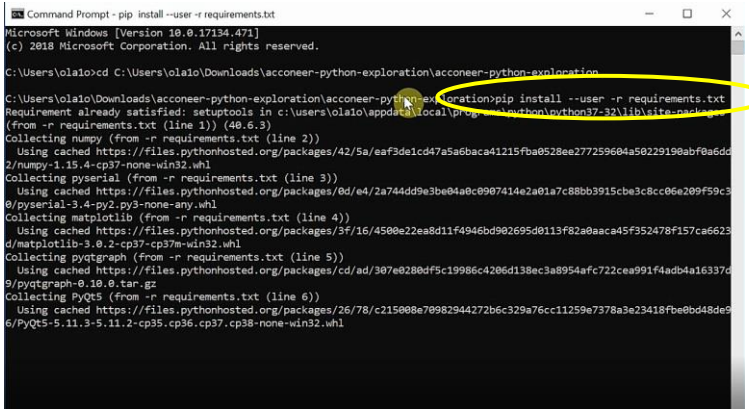


Installing Exploration tool

- In Command Prompt: Run the command: *python -m pip install -U --user setuptools wheel*
- Then the command: *pip install --user –r requirements.txt* (Pic 1)
- Wait until the installation has finished and run the next command: *python setup.py install --user* (Pic 2)

1



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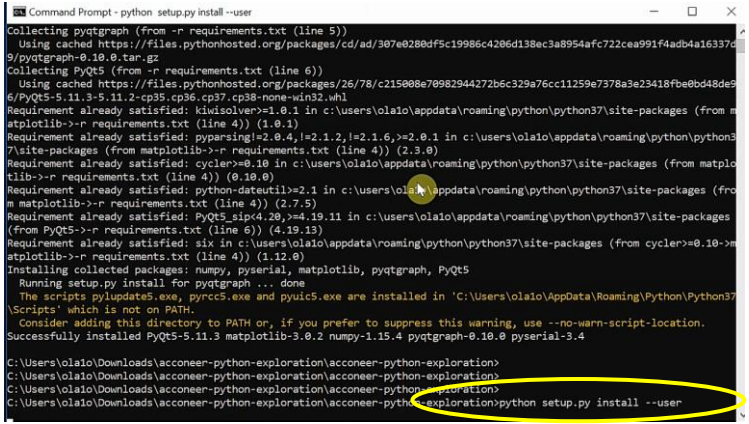
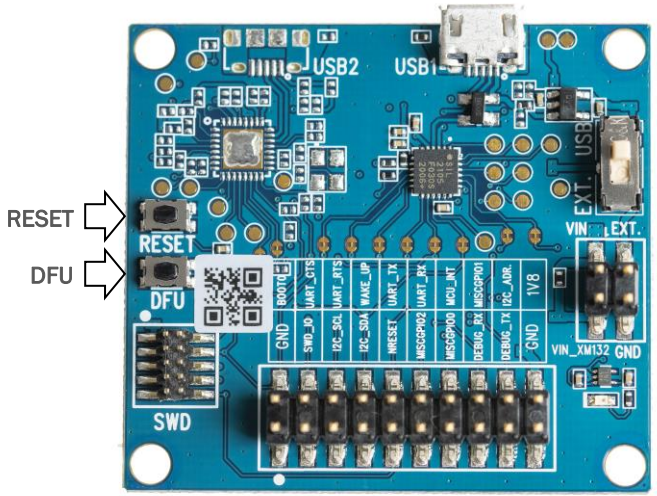


Start Boot Mode (DFU Mode)

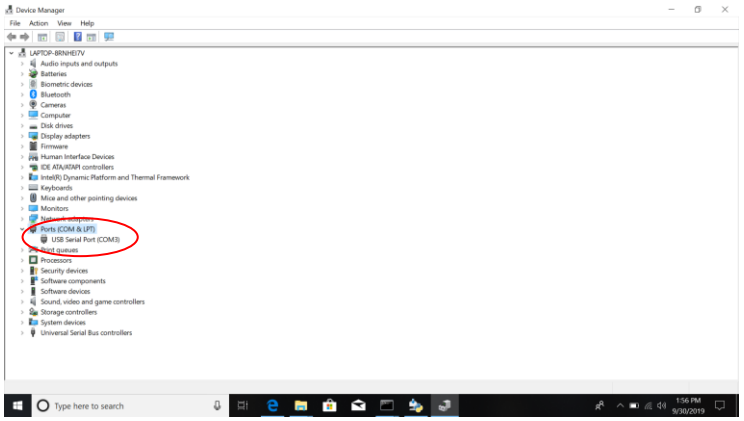
1. Press the DFU-button and hold it.
2. Press the RESET-button and hold it.
3. Release the RESET-button.
4. Release the DFU-button

Now the module is in DFU mode and ready to be flashed.



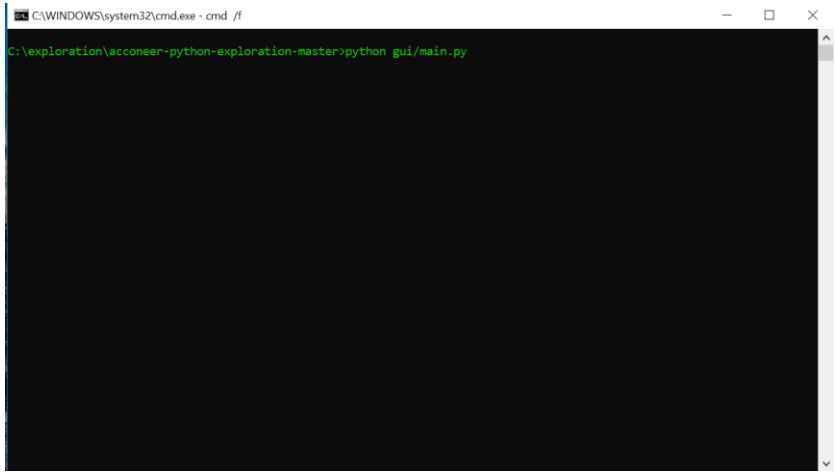
Flashing

1. Start Device Manager in Windows
2. Find the COM-Port that the XE124 is connected to. COM5 in our example.
3. In the command prompt directory where you placed XE124 Entry Module Server run the following command: *stm32loader -p COM5 –e –w –v acc_module_server_xm124.bin*
4. Make sure COM5 above is replaced with your COM port.
5. Now the XE124 is flashed and ready to use. Make sure to restat the module by pressing the RESET button.

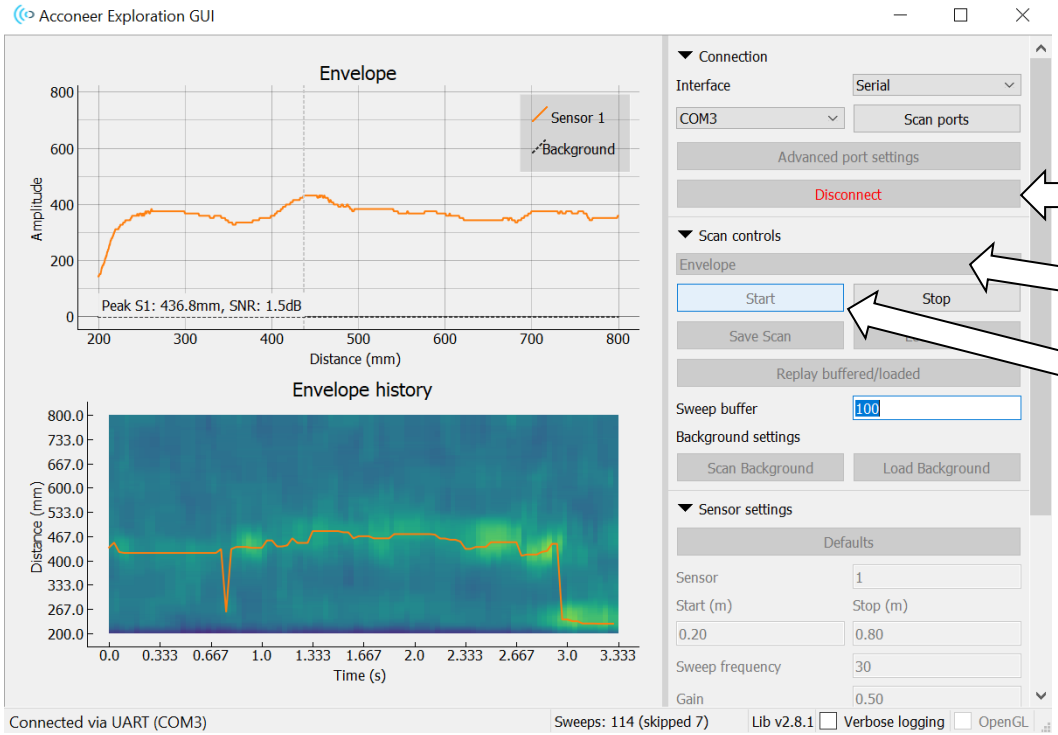


Run the exploration tool

- Run the following command in the command prompt: *python gui/main.py*
- Choose Serial as Interface in the dropdown.
- Click Connect
- Choose a service or a detector and click Start. (We used Envelope as an example)
- The result should be a graph showing the envelope data output from the sensor. Shown in next page.



Exploration Tool GUI, Envelope graph



Connect/Disconnect

Select Service/Detector

Start