

# FUSB15200 Dual Port USB TYPE-C/PD Controller Flash Programming Guide

## FUSB15200EVBFPG

### Introduction

The FUSB15200 Evaluation Board (EVB) together with the firmware binary provided in the release package permits a customer to program the flash memory and non-volatile memory (NVM) of the FUSB15200.

### Required Hardware and Setup Instructions

- A. FUSB15200 Evaluation Board (EVB)
- B. [SEGGER J-Link Pro](#) JTAG/SWD programming and debug probe
- C. [9-Pin Cortex-M Adapter](#) to connect (A) the EVB to (B) J-Link Pro
- D. External Power Supply

- Use (C) the 9-Pin Adapter to connect (B) the J-Link Pro to the SWD connector (J15) on the socket EVB
- Connect (D) the Power Supply GND to the GND pin of (A) the EVB
- Setup (D) the Power Supply to 12 V (~200 mA) and connect to VBAT pin of (A) the EVB

### Required Software

- A. SEGGER J-Link Tools

Please download and install the [SEGGER J-Link utility](#)

*Note:* We recommend using version 7.92d. Please make sure SEGGER J-Flash is installed.

- B. FUSB15200 Flash Loader

Please download the [FUSB15200 Flash Loader](#) used by J-Link to flash the EVB.

Search for file FUSB15200\_FLASH\_LOADER.ELF

Further instructions on where to place this file will be indicated in the subsequent paragraph.

- C. FUSB15200 Device List AddOn

Please download the [FUSB15200 Device AddOn](#) to add the FUSB15200 to the device list xml.

Search for file FUSB15200\_XML\_ADDON.TXT

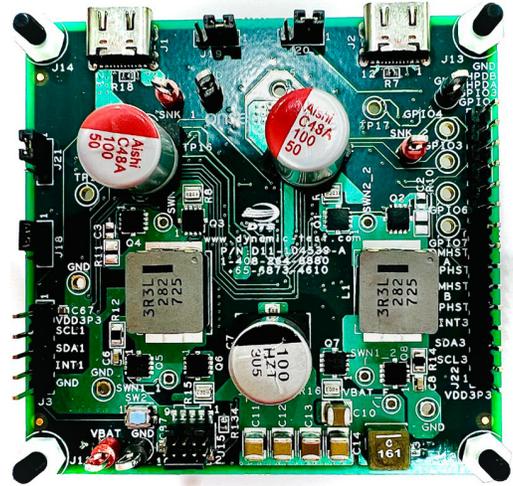


Figure 1. FUSB15200 DUAL PORT 60 W EVB

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## Adding FUSB15200 Support to J-Link

There is a need to add the FUSB15200 to the list of J-Link supported devices. J-Link requires a device support to be added in xml format as follow:

- Create a directory named onsemi\FUSB15200 as follow:  
C:\Users\<USER\_NAME>\AppData\Roaming\SEGGER\JLinkDevices\onsemi\FUSB15200\
- Rename the file (C) FUSB15200\_XML\_ADDON.TXT to Devices.xml and place it in the following directory:  
C:\Users\<USER\_NAME>\AppData\Roaming\SEGGER\JLinkDevices\onsemi\FUSB15200\
- Copy the file (B) from section “Required Software” into  
C:\Users\<USER\_NAME>\AppData\Roaming\SEGGER\JLinkDevices\onsemi\FUSB15200\

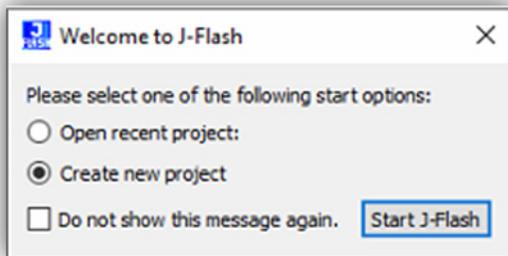
## Programming the FSUB15200 Flash

Complete the following 4 steps:

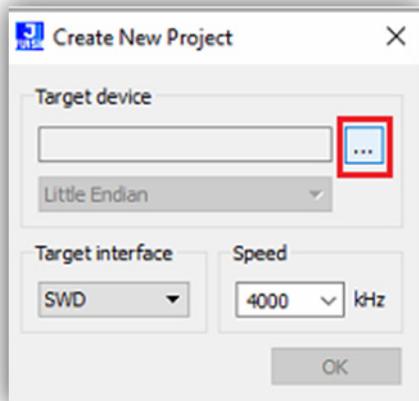
- a. Connect J-Link to the EVB
- b. Erase the Flash Content
- c. Program the Flash Content
- d. Validate Flash Content

a) *Connect J-Link to the EVB*

- Open the SEGGER J-Flash and select “Create new project” then “Start J-Flash”

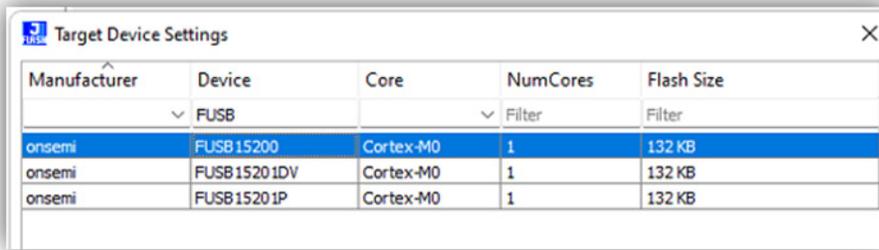


- Click on the selection box

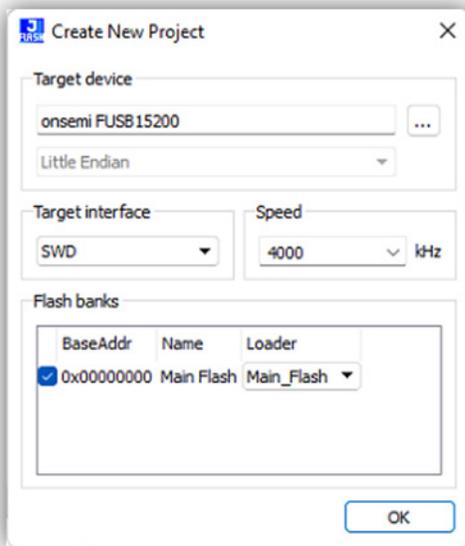


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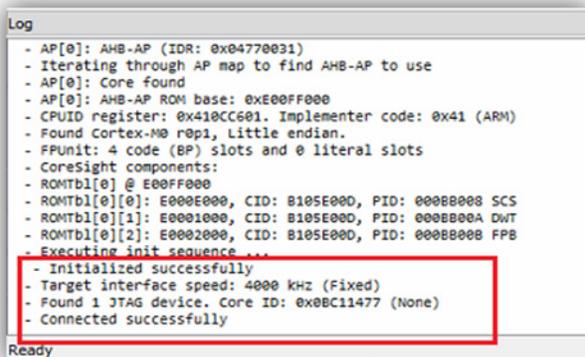
- Select FUSB15200



- Select Target interface: SWD
- Select Speed: 4000 kHz
- Click OK for the new project to be created



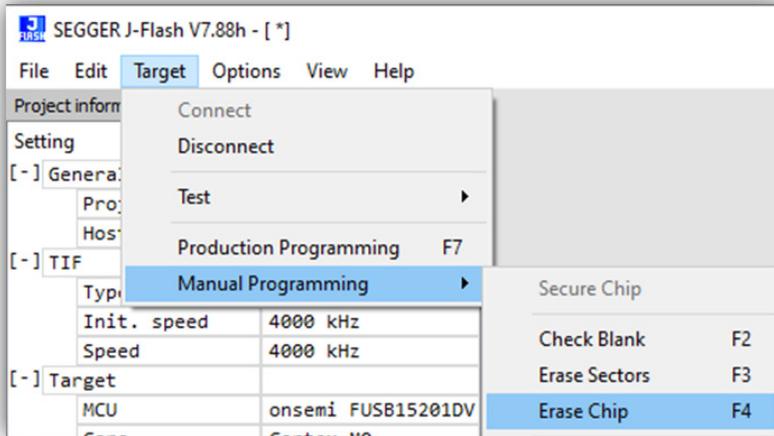
- From the menu go to Target
  - Then go to Connect
- If the connection is established, you should see a message on the Log indicating a successful connection.



## FUSB15200EVBFPG

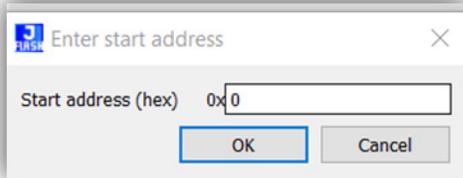
### b) Erase the Flash Content

- From the menu, choose Target.
- From the resulting window, choose Manual Programming.
- Select Erase Chip. J-Flash erases the chip and reports a successful Erase operation.

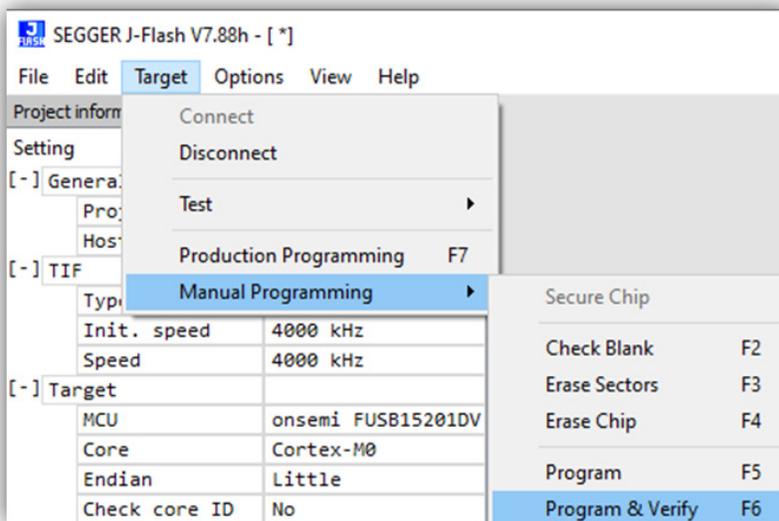


### c) Program the Flash Content

- Drag the appropriate .bin file into the J-Flash window.  
J-Flash asks for a start address, please accept the default 0x0 as follow:

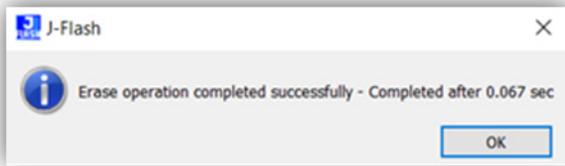


- Once you have confirmed the starting address, the file can be flashed, either by pressing F6 or by using the **Target** context menu to **Program & Verify** the chip.



# FUSB15200EVBFPG

- Upon successful flash programming, J-Flash will display the following:



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