

# SiT6506EB Programmer HW User Manual

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## 1 Introduction

The SiT6506EB Programmer is designed exclusively to configure and burn programmable SiT9514x Cascade Platform™ units.

## 2 Compatibility

- Supports [SiT95141](#), [SiT95145](#), [SiT95147](#), and [SiT95148](#) programmable units
- USB-C port for power and control
- Configure via Cascade GUI on Windows PC
  - o Supports standard I<sup>2</sup>C interface for programming (does not support SPI)

## 3 Support Collateral

The SiT6506EB Programmer is provided with the following collateral:

- SiT6506EB Programmer HW User Manual
- Cascade GUI self-installing executable
- Cascade GUI User Manual

## 4 Usage

### 4.1 Jumper Setup

For proper usage, the PCB jumpers must be set as follows. See [Figure 1](#) for diagram.

1. The power source jumper must be set to **Ext\_In**.
2. The signal jumper must be set to **SPI**. Note that although the jumper must be set to **SPI**, the programming board only supports configuration through I<sup>2</sup>C interface.
3. All voltage selectors must be set to **2.5 V**.

### 4.2 USB-C Power/Control Port

To operate the programming board, connect your Windows PC to the USB-C port on the elevated blue daughter board. DO NOT use the USB-C port attached to the parent board. See [Figure 1](#).

- Ensure the I<sup>2</sup>C micro-switch is always set to **ON**.

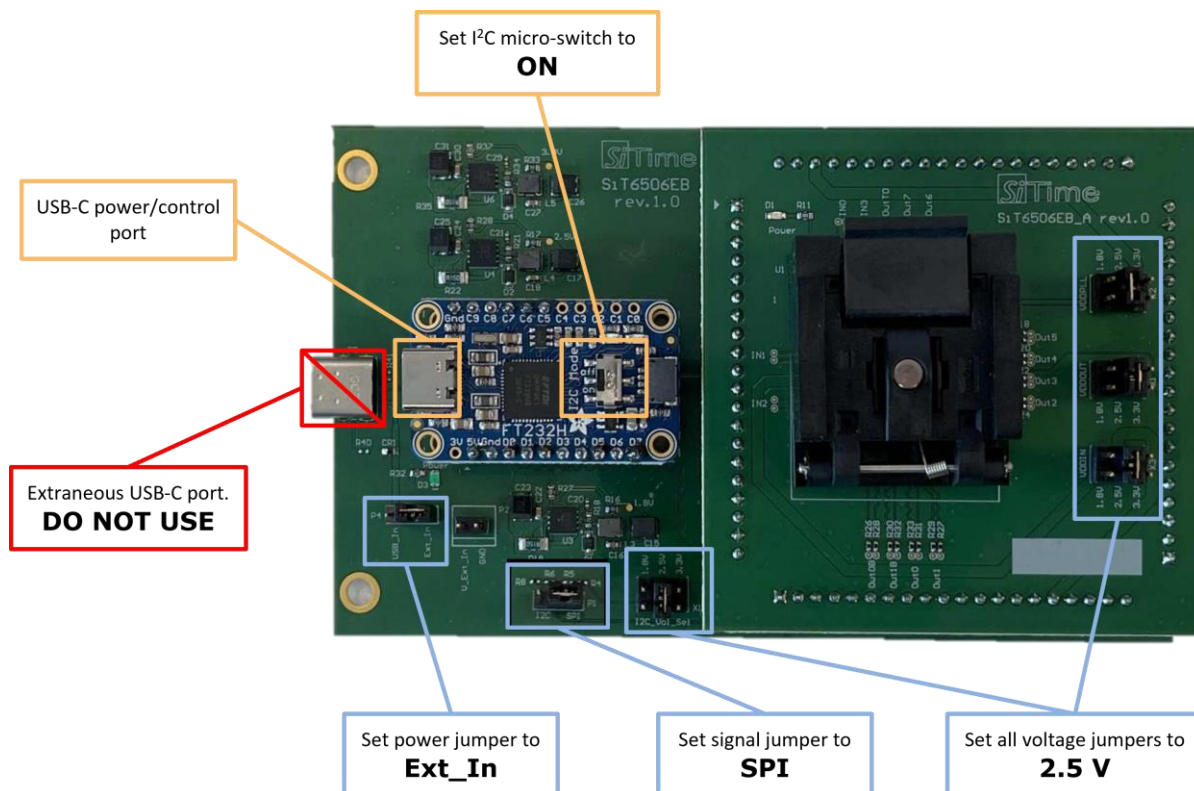


Figure 1. Programming Board with properly connected jumpers

### 4.3 Loading an SiT9514x Unit

To properly load an SiT9514x unit into the programming board, the pins on the unit must align with the pins on the programming socket.

- Pin 1 on an SiT9514x unit is indicated by a light-colored dot (see [Figure 2](#)).
- Pin 1 on the programming socket is located on the side nearest to the USB-C port (see [Figure 3](#)).

Close the programming socket when ready to configure.

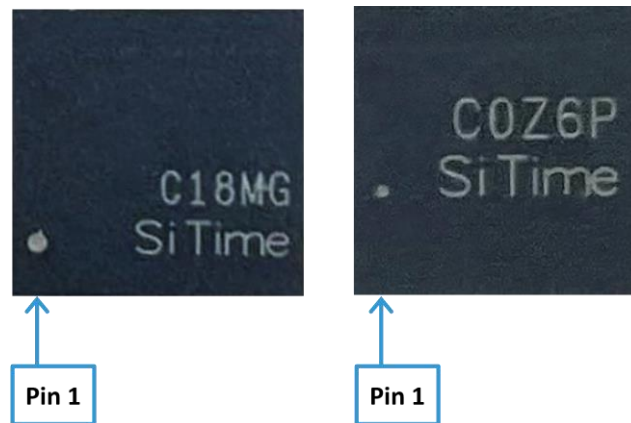


Figure 2. Location of pin 1 on two SiT9514x variants

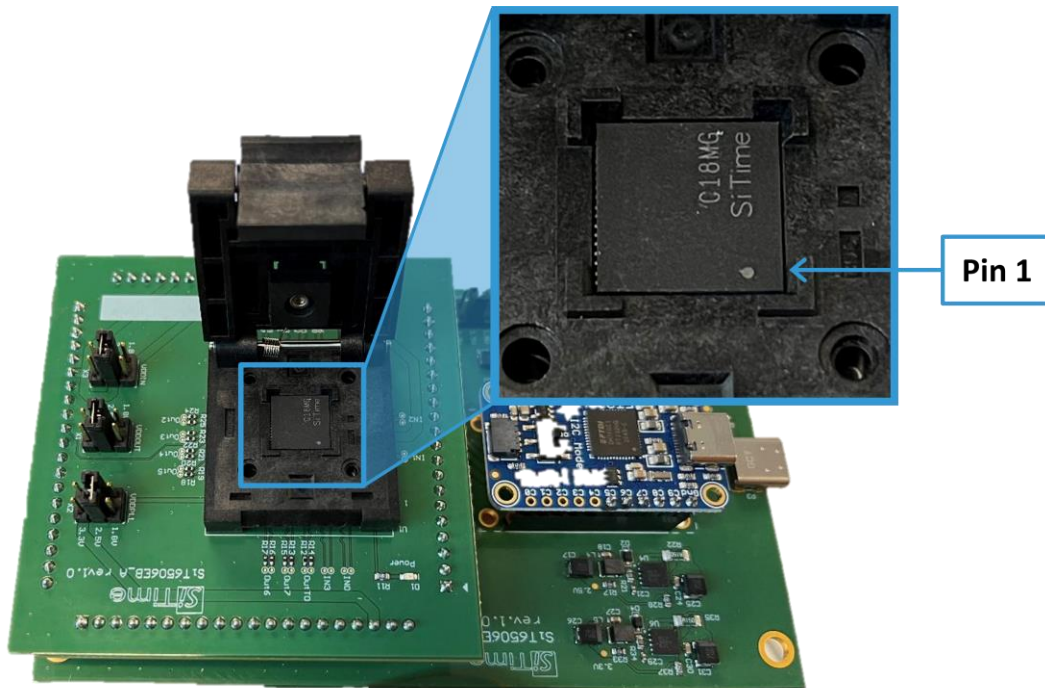


Figure 3. SiT9514x unit properly loaded in programming socket

## 5 Programming via Cascade GUI

To program an SiT9514x unit, the user must generate a burn file (format: *filename.efuse.nvm.py*) using the Cascade GUI and load it onto the unit. For specific instruction on creating and loading a burn file, see Section 7.4 of the [Cascade GUI User Manual](#).

**Note:** The **Chip Communication** field within the GUI must always be set to **I<sup>2</sup>C** for compatibility with the SiT6506EB Programming Board.

**Table 1. Revision History**

Version	Release Date	Change Summary
1.0	8-Jul-2022	Original doc

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