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
  - Supports standard I2C 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\(^2\)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\(^2\)C micro-switch is always set to ON.

![Figure 1. Programming Board with properly connected jumpers](image-url)
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\(^2\)C** for compatibility with the SiT6506EB Programming Board.
Table 1. Revision History

<table>
<thead>
<tr>
<th>Version</th>
<th>Release Date</th>
<th>Change Summary</th>
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<tbody>
<tr>
<td>1.0</td>
<td>8-Jul-2022</td>
<td>Original doc</td>
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