Product Information

This notice includes information related to your Little ATF Programmer product. Please read this document carefully and retain for your reference.

WARNING: The OE1/I Test Pin will become active at over 12 Volts (VPP) during operation. It is NOT recommended to connect this pin in a test rig. Damage to connected devices may occur.

1. Jumper Installation

Prior to connecting your programmer, you will need to install the supplied 1x3 pin header / jumper to the "3.3V / 5V" jumper position next to the USB connector. When in use, this jumper will need to be set to match to the ATF chip in use (either 5V or 3.3V respectively).

It is recommended to also solder on the supplied sockets at the same time.

2. USB Connection

Your device requires connection to the host computer via the onboard USB-C connector.

Your operating system should autodetect the device when connected and make it available as a virtual serial port. The atfu software will detect and use the connected programmer automatically.

In cases where you have multiple programmers, or if autodetection does not work for some reason, you can supply the -p option to explicitly specify a device.

The 'atfu programmer list' command will show a list of detected programmers and their associated devices.

3. Software Installation

- Connect your Little ATF Programmer
- Install Python (3.9+) using the recommended installation for your OS
- Open a new terminal window
- Type `pip install little-atf-programmer`
- You should now be able to do `atfu --version` to check it's working!

For Linux® and macOS® users, Python can be installed with your system package manager, or Homebrew / Linuxbrew.

For Windows users, Python can be downloaded from https://python.org/downloads/windows - Be sure to select the "Add to path" option during install

4. Software Usage

Please see https://github.com/roscopeco/atfprog-tools/blob/main/README.md for detailed usage instructions for the programming software.

The 'atfu --help' and associated operation-specific help text (e.g. 'atfu program --help') commands can be used to see online context-specific help from the program.

5. JTAG-A / JTAG-X Connectors & VCC-T Jumper

The JTAG-A and JTAG-X connectors and associated VCC-T jumpers are provided for when situations where you wish to program ATF150x devices using ICSP programming headers, instead of the on-board sockets.

The general workflow for this is to short the VCC-T header **only** if the board you are programming does not provide its own power, and use the JTAG-X header to connect to a standard ICSP header on the board. Support for ICSP and isolation is required on the target board.

When using the JTAG headers, no ATF150x chip should be populated in the on-board programming sockets.

Note that some features, such as force erase / unlock modes, are not available when using ICSP programming via the JTAG headers.

6. Test Pins

WARNING: The OE1/I Test Pin will become active at high voltage (VPP) during operation. It is NOT recommended to connect this pin in a test rig. Damage to connected devices may occur.

All pins for both 44- and 84-pin PLCC parts are broken out to test pins on the board.

This allows the programmer board to double as a convenient testing / validation platform for CPLD designs.

Carefully connect external equipment to the correct pins and observe all current sink/source and drive requirements to avoid damage to the board or connected devices.

7. Compliance Notices

All information contained in the product documentation (herein and online) and any additional information and documentation (including this notice) is correct as far as possible at the time of writing. Errors & omissions exempt.

To achieve compliance with local regulations regarding electro-magnetic interference (both transmission and receipt) the product may need to be operated in a suitable grounded enclosure with appropriate application-specific shielding. The Really Old-School Company Limited neither specify not supply such enclosures and recommend that expert guidance be sought where an enclosure is to be used.

The Really Old-School Company Limited does not authorize the use of any of its products in safety critical or life support applications where the failure or malfunction of the product can reasonably be expected to cause failure of the safety critical or life support system or to significantly affect its safety or effectiveness. This includes, but is not limited to, human life support, nuclear safety and control, air-traffic control, and vehicular control.

Products are not authorized for use in such applications under any circumstances.

All PCBs and components we supply are compliant with Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS) regulations.

Compliance in finished kits you build will also depend on your choice of solder when building your board.

Please dispose of any waste in accordance with relevant Waste Electrical and Electronic Equipment recycling (WEEE) regulations in your jurisdiction.