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MICROCHIP CP-PROG-BASE ChipPro FPGA Device Programmer User Guide

**ChipPro FPGA Device Programmer
Quickstart Card**

Contents

Overview

ChipPro is a quick and easy device programming solution for Microchip's Field Programmable Gate Array (FPGA) devices. The ChipPro Programmer baseboard hosts a connector to plug into the FlashPro6, our latest programmer that supports Linux and Windows platforms, in conjunction with Libero SoC, FlashPro Express, and SmartDebug software. FlashPro supports all the FPGA devices in PolarFire SoC, PolarFire, SmartFusion 2, IGLOO 2 and RTG4″, and RT PolarFire series. The System-On-Module (SOM) corresponding to each package size and type in Microchip's portfolio of FPGAs can also be connected to the baseboard to program the FPGA package.
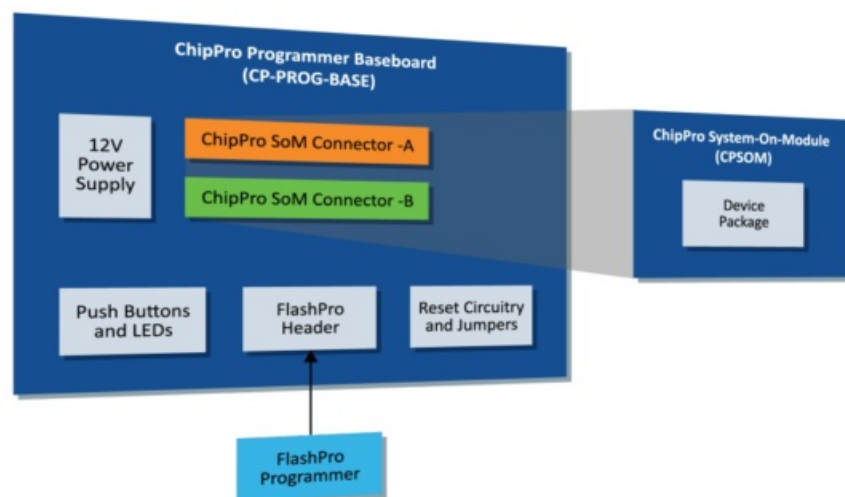
Table 1-1. Kit Contents-ChipPro Baseboard (CP-PROG-BASE)

Quantity	Description
1	ChipPro Programmer® baseboard
1	FlashPro6 Programmer (FLASHPRO6)
1	12V, 5A AC power adapter and cord
1	Quickstart card

Table 1-2. Kit Contents—ChipPro SoM

Part Number	Description
1	ChipPro SoM for MPFXXXX-XXXXXX or M2GLXXXXX-XXXXXX

Figure 1-1. Microchip ChipPro-FPGA Device Programmer

1.1 Jumper Settings
The ChipPro FPGA device programmer comes with the following default jumper settings:
Table 1-3. Jumper Settings

Jumper	Pin	Factory Default
J6, J7	2–3	Short 1–2: Indicates that an FPGA device is not loaded on to the ChipPro SoM, recommended only for board bring-up (without Silicon) Short 2–3: Indicates that an FPGA device is loaded on to the socket of the ChipPro SoM board
J26	1–2	Open

J17, J18, J19, J20	1–2	Short 1–2: Enables the SPI programming header Short 2–3: Enables the SPI Flash DB connector
J21	1–2	Enables SPI
J22	1–2	Configures I/O
J23	1–2	Reserved

1.2 Running the Demo

To familiarize with the FlashPro programmers and the corresponding device support before getting started with ChipPro, refer to the following documents.

- **FlashPro Express Device Support**
- **FlashPro Express User Guides**

To run the demo, perform the following steps:

1. Connect the socketed ChipPro SoM board (for the device and package type of your project) to the baseboard (align with J3 and J4 Connectors on the ChipPro baseboard).
2. Insert the FPGA device (must correspond to the ChipPro SoM mentioned in the previous step) to be programmed, into the socket on the ChipPro SoM. Ensure that the polarity of the FPGA device and the socket matches.
3. Connect the 12V power supply to J5.
4. Connect the USB port on the FlashPro6 programmer to a PC, using the USB cable provided with the programmer.
5. Connect the JTAG port, on the FlashPro6 programmer, to the ChipPro baseboard using the J27 FlashPro header on the baseboard.
6. Turn ON the SW1 switch by sliding.
7. Open the FlashPro Express Programming software on the PC; navigate and select the appropriate programming file to program the device.

Software and Licensing

Starting from Libero SoC v11.5 release, FlashPro Express is also installed as part of **Libero SoC**. Libero SoC requires a license to create and program the device. FlashPro Express Standalone is also available as part of the **Programming and Debug** tools. No additional licenses are required for the FlashPro Express Standalone software.

Documentation Resources

For more information about ChipPro, visit our **CP-PROG-BASE** webpage.

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