TinyFPGA BX Development Board

CS-TINYFPGA-01

Product Overview
01-3-2022
For the most up-to-date information, visit www.mouser.com or the supplier's website.

Description

Crowd Supply TinyFPGA BX Development Board is a small FPGA module with all of the components and circuitry required for the FPGA to function. This module brings the power and flexibility of custom digital logic designs that allow for ambitious projects that are not possible with a traditional microcontroller.

The TinyFPGA BX board allows designing and implementing digital logic circuits in a tiny form factor perfect for breadboards, small spaces, and custom PCBs. This open-source and open-hardware module is ideal for students, professionals, and hobbyists.
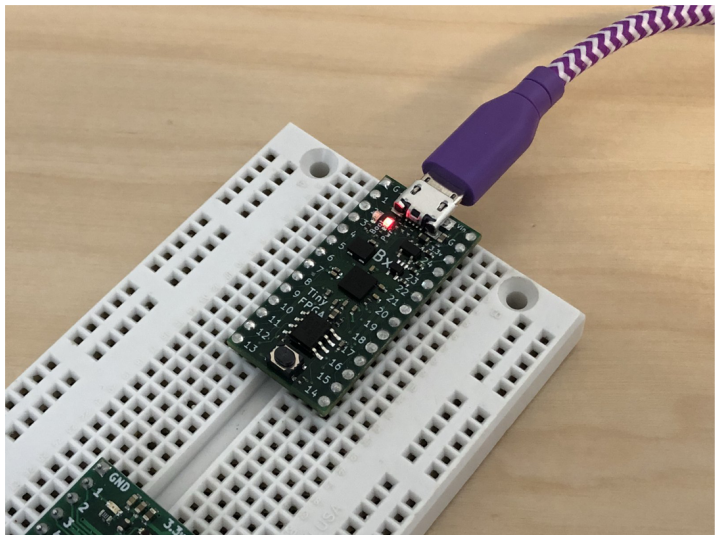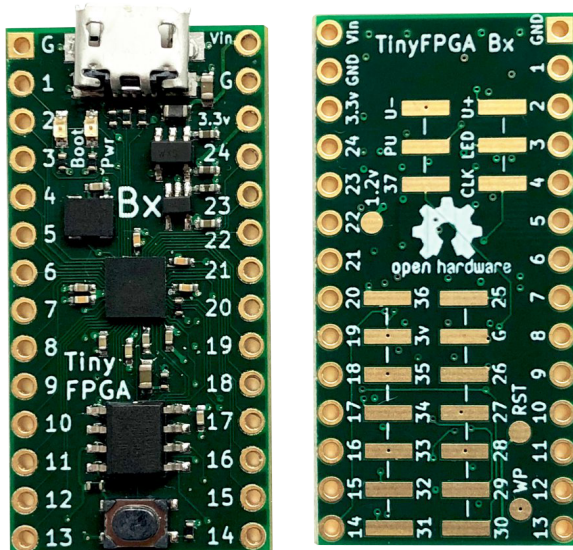
Features

- Small-form factor that is breadboard friendly
- Open-source FPGA toolchain support
- High-quality PCB design:
    - Four-layer PCB with dedicated ground and power planes
    - Six external ground connections (including the USB connector)
    - Power distribution and decoupling capacitors
- Open-source USB bootloader with metadata on the SPI flash in an open JSON format:
    - A unique ID for each board
    - A human-readable name of the board and FPGA
    - Information on where to put the user program and optional user data
    - An update URL for fetching bootloader/firmware updates

Specifications

- 1.4inches height and 0.7inches width
- USB 2.0 full-speed (12mbit/sec) programming interface
- ICE40LP8K FPGA :
    - 7,680 four-input look-up-tables
    - 128KBit block RAM
    - Phase-locked loop
    - 41 user IO pins
- 8MBit of SPI flash
- Onboard 3.3V (300mA) and 1.2V (150mA) LDO regulators
- Low-power 16MHz MEMs oscillator :
    - 1.3mA power when active
    - 50ppm stability

Board Overview

Mouser Part Number

[View Part](#)

To learn more, visit https://www.mouser.com/new/crowd-supply/crowd-supply-tinyfpga-bx-board/