



TinyFPGA BX Board

DEV-14829

The TinyFPGA BX is a small field-programmable gate array (FPGA) board with all of the components and circuitry required for the FPGA to function, provided for you in a single package. The BX module allows you to design and implement your own digital logic circuits in a tiny form-factor perfect for breadboards, small spaces, or custom PCBs. The power of the TinyFPGA BX allows you to do things that are not possible with traditional microcontrollers. While microcontroller boards have a fixed set of peripheral devices on-board, the TinyFPGA BX can implement the exact peripheral devices needed to get the job done!

The full potential of programmable logic devices allows for even more ambitious projects than custom microcontroller peripherals: augment a retro-computer with new capabilities, recreate an 8-bit computer from history, or design your own. Once you have a design, you can program it onto the TinyFPGA BX module over USB. All the functions your design implements will now be able to interface with the outside world through the module's IO pins.

Whether you are a hobbyist looking to expand your capabilities, a professional prototyping a new product, or a student learning the ropes of digital design, the TinyFPGA BX can help you on your way.

Features

- Programming Interface: USB 2.0 full-speed (12 mbit/sec)
- ICE40LP8K FPGA
 - 7,680 four-input look-up-tables
 - 128KBit block RAM
 - Phase Locked Loop
 - 41 user IO pins
- 8MBit of SPI Flash
- Onboard 3.3 V (300 mA) and 1.2 V (150 mA) LDO regulators
- Low-Power 16 MHz MEMs Oscillator
 - 1.3 mA power when active
 - 50 ppm stability.



