Bus Pirate

TOL-09544 ROHS



images are CC BY-NC-SA 3.0

Description: The Bus Pirate, created by lan Lesnet and featured on Hack a Day, is a troubleshooting tool that communicates between a PC and any embedded device over most standard serial protocols, which include I2C, SPI, and asynchronous serial****- all at voltages from 0-5.5VDC. This product eliminates a ton of early prototyping effort when working with new or unknown chips.

Working with the Bus Pirate is simple and effective - type commands into a terminal on your computer, those commands are interpreted by the Bus Pirate and sent via the proper protocol. The Pirate will also interpret data sent from your embedded device back to your computer terminal. A big bonus is the bootloader installed on the PIC, which allows you to easily update the firmware and change the functionality of the board.

The main components of the Bus Pirate are PIC24FJ64 processor and an FT232RL USB-to-Serial chip. A Mini-B USB connector is populated on the board, and when you plug it into your computer it will come up as a virtual COM port. The pinout of the 2x5 I/O header is documented here.

Order now! We are setup to build these in house regularly. Lead times should remain less than a week.

Note: This product is a collaboration with Ian Lesnet. A portion of each sales goes back to them for product support and continued development.

Features:

- Supported protocols:
 - 1-Wire
 - I2C
 - ∘ SPI
 - JTAG
 - Asynchronous serial

- MIDI
- PC keyboard
- · HD44780 LCD
- $\circ~$ 2- and 3-wire libraries with bitwise pin control
- Scriptable binary bitbang, 1-Wire, I2C, SPI, and UART modes
- 0-5.5volt tolerant pins
- 0-6volt measurement probe
- 1Hz 40MHz frequency measurement
- 1kHz 4MHz pulse-width modulator, frequency generator
- · On-board multi-voltage pull-up resistors
- On-board 3.3volt and 5volt power supplies with software reset
- · Macros for common operations
- Bus traffic sniffers (SPI, I2C)
- · A bootloader for easy firmware updates
- Transparent USB->serial mode
- 10Hz 1MHz low-speed logic analyzer
- Scriptable from Perl, Python, etc.
- Translations (currently Spanish and Italian)
- · Enumerates as a virtual COM port over USB
- Can operate as AVR STK v2 clone programmer
- · Access to PIC24FJ64 ICSP programming port

Dimensions: 2.10 x 1.20" (53 x 30mm)