

# XinaBox Datasheet IP02 - Advanced USB Programming Interface



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## Overview

This xCHIP forms part of the interface programmer modules.

The FT232R is a USB to serial UART interface device which is equipped to power and program other modules via a USB A connector. The IP02 is required for programming the range of CPU Core xCHIPS over the USB-serial bridge provided by the FT232R.

The IP02 has two switches so that you can switch between DTE and DCE. The other switch is between A and B.

### Product Highlights

- Single chip USB to asynchronous serial data transfer interface.
- Transmit and receive LED drive signals.
- Low operating and USB suspend current.
- Low USB bandwidth consumption.
- USB 2.0 Full Speed compatible.

## Applications

- Serial Programming of xCHIPS
- Serial Interface for debugging
- Serial Data Monitoring
- USB-Serial Internet Link for IoT Devices

## Specifications

- Entire USB protocol handled on the chip. No USB specific firmware programming required.
- Fully integrated 1024 bit EEPROM storing device descriptors and CBUS I/O configuration.
- Data transfer rates from 300 baud to 3Mbaud at TTL levels.
- 128 byte receive buffer and 256 byte transmit buffer utilising buffer smoothing technology to allow for high data throughput.
- FIFO receives and transmits buffers for high data throughput.
- Supports bus powered, self-powered and high-power bus powered USB configurations.
- Integrated power-on-reset circuit.

## External Links

### Datasheet

- FT232R From FTDI Chip ([http://www.ftdichip.com/Support/Documents/DataSheets/ICs/DS\\_FT232R.pdf](http://www.ftdichip.com/Support/Documents/DataSheets/ICs/DS_FT232R.pdf))

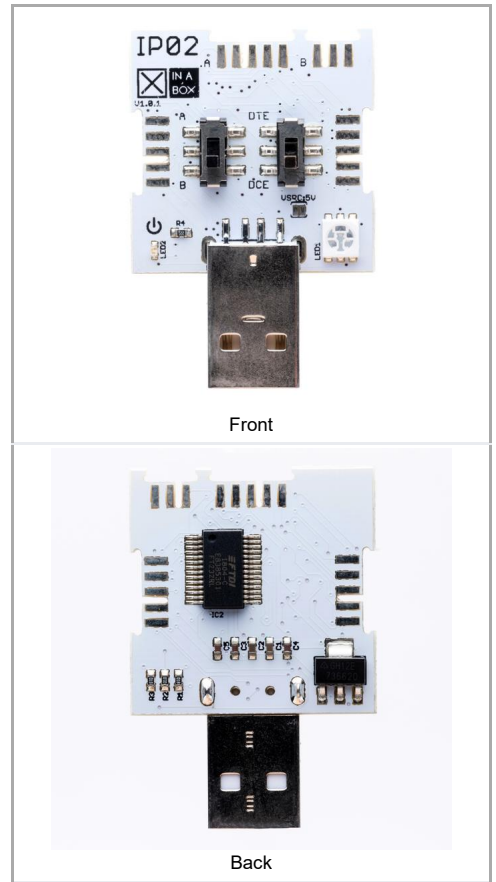
### Shop

- Buy IP02 (<https://xinabox.cc/products/IP02>)

### GitHub

- IP02 on GitHub (<https://github.com/xinabox/IP02>)

## IP02 - Advanced USB Programming Interface (FT232R)



<b>Main Category</b>	Interface
<b>Sub Category</b>	Programmer
<b>Introduced</b>	1 January 2017
<b>Current version</b>	1.0.1
<b>Current version date</b>	1 January 2017
<b>Weight</b>	6.3 g
<b>Height</b>	9/0/0 mm
<b>Non-BUS Connections</b>	
<b>South</b>	USB A
<b>Main Chip Set</b>	
<b>Main Chip</b>	FT232R
<b>EEPROM Memory Size</b>	1024 bit