

# USB-ICP



## USB-ICP-LPC2K

### USB In-Circuit Programmer

USB-ICP supports In-System Programming (ISP) on Philips ARM7 LPC2xxx microcontroller family. In-System Programming uses a two-wire serial interface to program and erase ISP enabled microcontroller devices without removing them from the system. The ISP function uses only six pins: VCC, GND, RXD, TXD, P0.14 and RESETn. A small connector is all that is needed to interface your ISP application to the USB-ICP programmer.

### *Highlights*

- USB port powered so no external Power Supply required
- Supports USB 2.0
- Plugs directly into any standard USB Port – great for laptops
- Supports Philips' ARM 7 LPC21xx and LPC22xx family of microcontrollers
- Works with Philips' free flash utility that can be downloaded from the web
- USB-ICP Kit Includes:
  - ◆ USB-ICP dongle
  - ◆ 18" cable allowing direct connection to the user's application
  - ◆ ISP design guide for the user's target board

# Technical Details



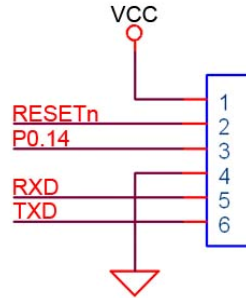
USB-ICP uses a standard RJ-45 for connection to the target cable.

**Indicator LEDs**

Green – “Link” Indicates the USB-ICP has been configured by the host PC

Yellow –“ACT” indicates USB Activity (Rx/Tx)

## Target Schematic



The ISP function uses only six pins: VCC, GND, RXD, TXD, P0.14 and RESETn. The simple circuit above is all that must be added to the user’s application to use ISP with USB-ICP.



Example User Target Board (Not Part of Kit)

## Target Connector



The target connector utilized is a standard 0.100” pitch 6-pin header available from numerous suppliers.

### Example Molex Part Numbers

Part Number	Description
22-03-2061	6pin vertical through hole
68301-1017	6pin vertical surface mount
22-05-2061	6pin right angle through hole

# Ordering Information

Part Number: USB-ICP-LPC2K

Price: \$69.00 (USD)

Order Online Now at [www.teamfdi.com](http://www.teamfdi.com)

OR [www.digikey.com](http://www.digikey.com)

Digi-Key P/N: 622-1005-ND

Warranty: 30-day money back guarantee

Availability: Stock

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E-mail: [sales@teamfdi.com](mailto:sales@teamfdi.com)

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### USB-ICP Family

Part Number	Supports
USB-ICP-LPC9xx	Philips LPC9xx
USB-ICP-80C51ISP	Philips P89C51 Flash
USB-ICP-LPC2K	Philips ARM7 LPC2xxx

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