



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# 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



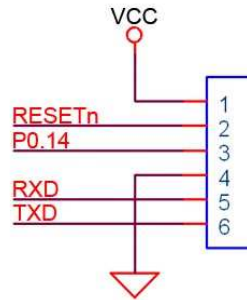
USB-ICP uses a standard RJ-45 for connection to the target cable.

### 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

### Order Online

[www.digikey.com](http://www.digikey.com)  
Digi-Key P/N: 622-1005-ND

Warranty: 30-day money back guarantee  
Availability: Stock

(800) 278-0293 Phone  
(256) 883-1241 FAX

[www.teamfdi.com](http://www.teamfdi.com)

### 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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