

USB-ICP



USB-ICP-LPC9xx

USB In-Circuit Programmer

USB-ICP supports the new In-Circuit Programming or ICP mode on NXP Semiconductors microcontroller families such as the LPC9xx. In-Circuit Programming uses a two-wire serial interface to program and erase ICP enabled microcontroller devices without removing them from the system. The ICP function uses only five pins: VCC, GND, PCL, PDA, and RSTn. A small connector is all that is needed to interface your application to the USB-ICP programmer.

The **USB-ICP-SAB9** Socket Adapter Board is also available to extend the capability of the USB-ICP-LPC9xx. The SAB9 can be used for prototyping with difficult to mount parts such as the HVSON10 and HQVFN28. For more information please visit our website at www.teamfdi.com

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 NXP P89LPC900 family of microcontrollers
- Works with NXP free Flash Magic software that can be downloaded from the web
- Compatible with USB-ICP-SAB9 Adapter Board
- USB-ICP Kit Includes:
 - ◆ USB-ICP dongle
 - ◆ 18" cable allowing direct connection to the user's application
 - ◆ ICP design guide for the user's target board

Technical Details



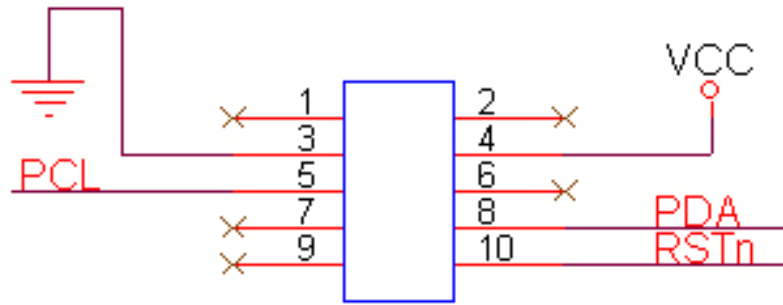
USB-ICP uses a standard RJ-45 for connection to the target cable.

Indicator LEDs

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

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

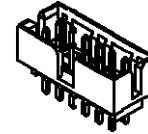
Target Schematic



The ICP function uses only five pins: VCC, GND, PCL, PDA, and RSTn. The simple circuit above is all that must be added to the user's application to use ICP with USB-ICP.

Note: This is for reference only and should not be used as design information.

Target Connector



The target connector is a standard 2mm pitch, 10-pin, shrouded header available from numerous suppliers. Shrouded connectors should be utilized in order to protect the pins and ensure proper connector insertion.



Example User Target Board (Not Part of Kit)

Example Molex Part Numbers

Part Number	Description
87831-1020	10pin vertical through hole
87832-1020	10pin vertical surface mount
87833-1020	10pin right angle through hole

Ordering Information

Part Number: USB-ICP-LPC9xx

Suggested Resale Price: \$69.00 (USD)

Order Online Now at:

www.digikey.com

www.mouser.com

NXP: OM10083

12 NC #: 935281405598

Warranty: 30-day money back guarantee

Availability: Stock

(800) 278-0293 Phone

(256) 883-1241 FAX

E-mail: sales@teamfdi.com

www.teamfdi.com

USB-ICP Family

Part Number	Supports
USB-ICP-LPC9xx	NXP LPC9xx
USB-ICP-80C51ISP	NXP P89C51 Flash
USB-ICP-LPC2K	NXP ARM7 LPC2xxx
Other USB-ICP Products	
USB-ICP-SAB9	SOCKET ADAPTER BOARD

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