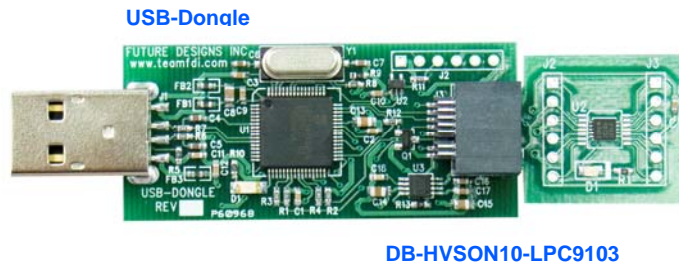


# USB-Dongle



## USB-Dongle and Derivative Boards



The USB-Dongle and Derivative Boards allow quick and easy ICP or ISP programming of many popular NXP Semiconductors microcontroller families such as the LPC9xx, ARM7 LPC2xxx and 89V52X2. The unit also provides a low cost platform for testing or prototyping of simple microcontroller based designs. The USB-Dongle provides a Virtual COM Port interface to the PC and allows hex files to be downloaded and programmed using Flash Magic or other common utilities. The USB-Dongle provides all power needed by the various Derivative Boards so no external power supply is required. Low cost Derivative Boards are available for many different microcontrollers from NXP. Please consult our website for details.

### Highlights

- Low cost tool for prototyping
- Supports many NXP microcontrollers
- USB port powered so no external Power Supply required
- Supports USB 2.0
- Plugs directly into any standard USB Port – great for laptops
- Works with NXP free Flash Magic software that can be downloaded from the web
- USB-Dongle Kit Includes:
  - ◆ USB-Dongle
  - ◆ Download docs and software examples at [www.teamfdi.com/USB\\_Dongle](http://www.teamfdi.com/USB_Dongle)
  - ◆ Derivative Boards for devices or sub-families are optional

# Technical Details

The USB-Dongle uses a standard USB connector to interface to the USB port on any PC.

## Indicator LED

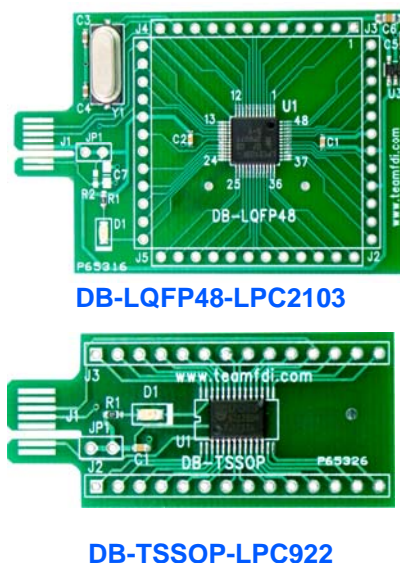
Slow Blinking – Error  
Fast Blinking – Activity  
On Steady – Ready

## Target Interface

The USB-Dongle includes a 14 pin connector to the Derivative Board that utilizes the following signals:

ISP/ICPn	5V (USB power, unswitched)
Switched Power (3V for ICP) or Reset (High True for 8051 ISP)	Reset (Low True) (for ICP & LPC2000 ARM)
Ground	3V (unswitched)
PCL/SCL (ICP/I2C)	PDA/SDA (ICP/I2C)
TXD (UART)	RXD (UART)
MSIO (SPI)	PSEN/P0.14 (ISP entry)
SCLK (SPI)	MOSI (SPI)

## Derivative Board Examples



## Ordering Information

Order Online at:  
[www.digikey.com](http://www.digikey.com)  
[www.mouser.com](http://www.mouser.com)

FDI Contact Info:  
(800) 278-0293  
Phone  
(256) 883-1241 FAX  
E-mail:  
[sales@teamfdi.com](mailto:sales@teamfdi.com)  
[www.teamfdi.com](http://www.teamfdi.com)

Derivative Board Family				
FDI P/N	Supported Device(s)	Digi-Key PN	Mouser PN	Price
USB-DONGLE	All	622-1007-ND	786-USB-DONGLE	\$17.00
DB-HVSON10-LPC9103	P89LPC9103	622-1008-ND	786-DBHVSON10LPC9103	\$5.00
DB-DIP8-LPC901	P89LPC901	622-1009-ND	786-DB-DIP8-LPC901	\$5.00
DB-SO8-LPC908	P89LPC908	622-1015-ND	786-DB-SO8-LPC908	\$5.00
DB-TSSOP-LPC922	P89LPC922	622-1010-ND	786-DB-TSSOP-LPC922	\$6.00
DB-TSSOP-LPC938	P89LPC938	622-1011-ND	786-DB-TSSOP-LPC938	\$6.00
DB-TQFP44-89V52X2	P89V52X2	622-1012-ND	786-DB-TQFP4489V52X2	\$7.50
DB-PLCC44-LPC952	P89LPC952	622-1016-ND	786-DB-PLCC44-LPC952	\$7.50
DB-LQFP48-LPC2103	ARM7 LPC2103	622-1013-ND	786-DB-LQFP48LPC2103	\$7.50
DB-LQFP48-LPC2106	ARM7 LPC2106	622-1019-ND	786-DB-LQFP48LPC2106	\$10.00
DB-PLCC44-SKT	ISP 80C51	622-1017-ND	786-DB-PLCC44-SKT	\$49.00
DB-TSSOP-SKT	14-28 pin LPC9xxx	622-1014-ND	786-DB-TSSOP-SKT	\$49.00

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