Original LPCXpresso Boards

The original form factor LPCXpresso boards use an MCU to implement the Link1 debug probe that is no longer available, so production of these boards has ceased, although substantial stocks remain of many of these boards. NXP is moving to LPCXpresso V2/V3 or MAX form factors for new development boards for the LPC MCU family as these boards support the popular Arduino and PMod® expansion connector schemes and feature a higher performance, high speed debug probe (Link2). The most popular original form factor LPCXpresso boards – including those for LPC1769, LPC1115 and LPC11C24 – are in the process of or have already been designed to replace the debug probe and retain the same form factor and expansion options available for the target MCU; these boards are known as "CD" variants. Replacement boards for other MCUs in the same form factor are being considered based on demand. Note that the availability of the development boards does not reflect the availability of parts – for details of longer term part availability please see the longevity program.

Board Overview

Since first introduced in 2009, the original LPCXpresso family of boards, along with the associated LPCXpresso IDE, has reenergized the whole MCU evaluation board market.

Developed in collaboration with Embedded Artists, each LPCXpresso board contains a JTAG/SWD debug probe called "LPC-Link" and a target MCU. LPC-Link is equipped with a 10-pin JTAG/SWD header and it seamlessly connects the LPCXpresso IDE to the target MCU via USB (the USB interface and other debug features are provided by NXP's ARM9 based LPC3154 MCU). The target includes a small prototyping area and easily accessible connections for expansion. An LED is also fitted as standard, with some board variants having additional fittings such as an RGB LED, potentiometer or USB device connector.

The original LPCXpresso family of boards are now complimented by a number of other NXP LPC evaluation boards / probes - including those based on the LPCXpresso V2 and V3 platforms.

Evaluate, Explore, Develop

The LPCXpresso board with target can be used:

- on its own for software development and benchmarking
- connected to an off-the-shelf baseboard, such as those available from Embedded Artists, for rapid proof-of-concepts.
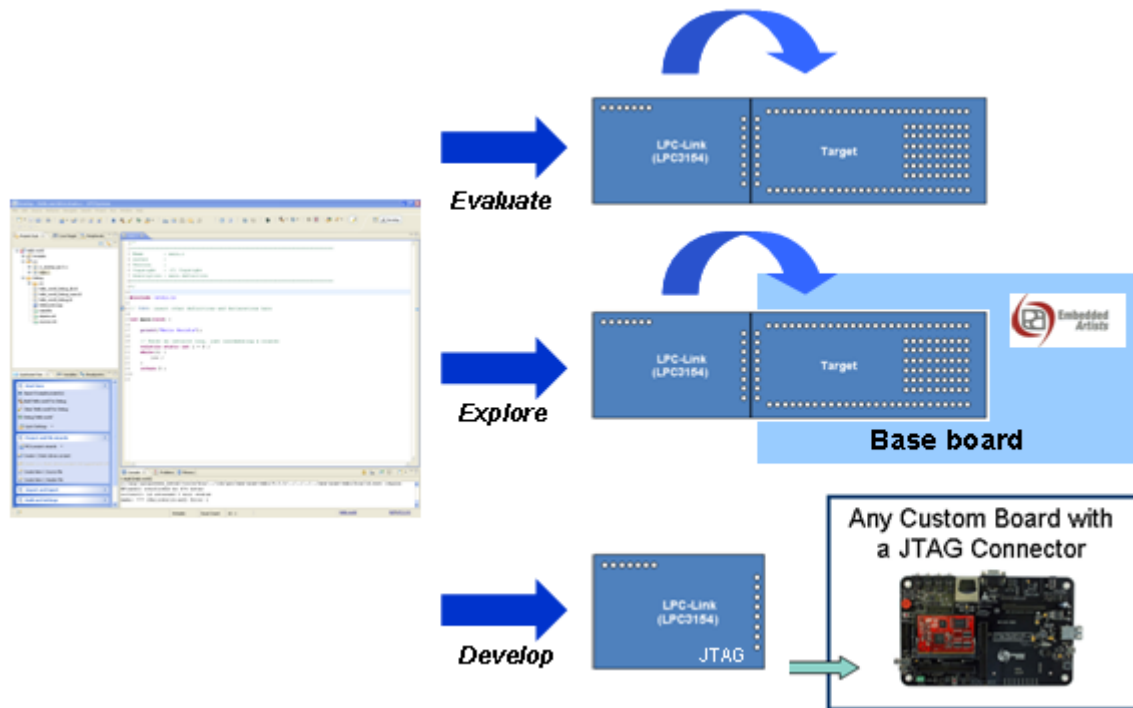
Cutting the tracks between the LPC-Link and the target will change the LPC-Link into a standalone JTAG/SWD debug probe. This enables the LPCXpresso platform to be connected to an external target, which may be an off-the-shelf commercial development board or a target board of your own design.
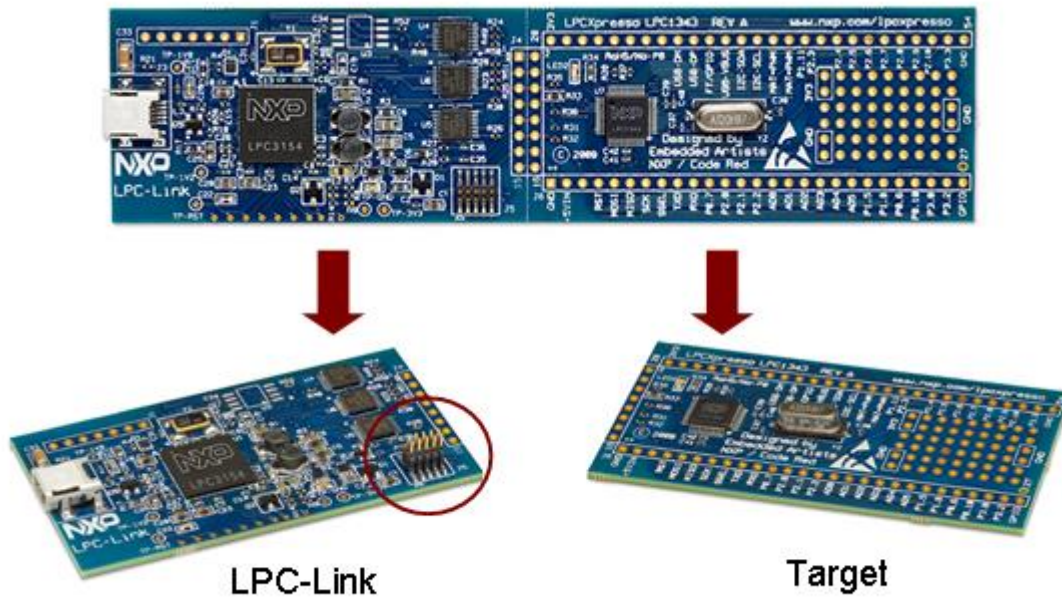
Dimensions

The LPCXpresso development board was designed to be pin compatible with NXP mbed. Its outer dimensions are 1.35x5.45 inches. It contains two rows of holes 900 mil apart. Each row has 27 connections and holes are drilled at a 100 mil pitch.

Power

An LPCXpresso development board can be powered either through the debug mini-USB port, by 3.3 V applied to the board, or by 5 V applied to the USB connector.

Debug Connector

A cable for the 10-pin debug connector on the LPC-Link debug probe portion of the LPCXpresso development board can be purchased from Digi-Key, part number FFSD-05-D-06.00- 01-N. Alternatively Embedded Artists also have an "10-PIN TO 20-PIN JTAG ADAPTER" available, which may be used.

For details of target design requirements regarding debug, please see the FAQ Design Considerations for Debug.

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