



USB Multilink Universal FX: A High-Speed, All-In-One Development Interface

Extremely Fast & Versatile

Overview

P&E's **USB Multilink Universal FX** is the **high-speed** version of P&E's "universal" USB Multilink debug probes. It combines support for many of NXP's 8-/16-/32-bit architectures with support for ARM® Cortex® devices from several manufacturers, including NXP's Kinetis and LPC (see below). It includes all the features of the USB Multilink Universal, plus these additional benefits:

- **Lightning fast! Up to 10X faster communications speed than the USB Multilink Universal***
- **Can provide power to the target MCU**
- **I/O line clamping for added protection**
- **Supports additional devices (e.g., HC16, 683xx, Power MPC5xx/8xx)**

*The exceptional performance increases seen with the USB Multilink Universal FX are limited to synchronous architectures: Kinetis, S32, MPC5xxx, Coldfire V2-V4, DSC, HC16/683xx.

Supports NXP & Multiple ARM Cortex Manufacturers

NXP 8-/16-/32-bit devices:

- | | |
|--|------------------------------|
| • Kinetis® | • HC(S)12(X) |
| • S32 | • S12Z |
| • LPC | • HCS08 |
| • MPC5xxx (& STMicro SPC5) | • RS08 |
| • ColdFire® +/V1 | • MAC7xxx |
| • ColdFire V2/3/4 | • Power MPC5xx/8xx (FX only) |
| • DSC | • 68HC16 (FX only) |
| • ARM Cortex-based devices | • 683xx (FX only) |

Applications

- Development/Prototyping

Hardware Features

- Very high-speed, hassle-free USB 2.0 communications interface
- Can provide power to target MCU
- Draws power directly from the USB port – no external power supply needed
- Multi-voltage support for targets ranging from 1.6 to 5.25 Volts
- I/O line clamping for added protection
- Includes ribbon cables for supported architectures
- Compact size

The USB Multilink Universal FX is an easy-to-use debug and programming interface which allows the PC to communicate with a target processor through a high-speed USB interface to the PC. It controls

the microprocessor by accessing the debug port of the target. The Multilink is able to accommodate communications with a variety of MCUs by featuring multiple headers, which can be accessed by simply flipping open the plastic case. Ribbon cables for the supported MCUs are conveniently included.

Development Solutions

The USB Multilink Universal FX's exceptional speed and reliability make it ideal for development. It is natively supported by recent versions of CodeWarrior® (10.x), Kinetis Design Studio, LPCXpresso, current P&E software applications, and toolchains from many NXP partners including Keil, Cosmic, and Green Hills (check with vendor for device compatibility).

