The USB Multilink Universal FX Interface

This On-Chip-Debugging cable supports most Freescale chips and with suitable software can be used for Flash Programming and Debugging embedded target systems. If you are unfamiliar with the use of "On-Chip-Debugging" we have a short tutorial.

CPUs supported are :-

Coldfire V1, V1+, V2-4	683xx/CPU32	HC16	DSC and PX

Qorivvva MPC 55xx – 57xx (AKA Nexus)   HCS08   RS08

Kinetis (JTAG and SWD)   HC(S)12(X)   S12Z

The units: ….. include ribbon cables for all supported architecture.

- Have fast, hassle-free USB 2.0 communications interfaces.
- Draw their power directly from the USB port – no external power supply needed.
- Multi-voltage support for targets ranging from 1.6 to 5.25 Volts.
- Auto-frequency detection for HC(S)12(X), HCS08 + trimming capabilities for HCS08 devices.
- Generates programming voltage on RESET line for RS08 devices.

For more details follow this link

RAM Download Speed
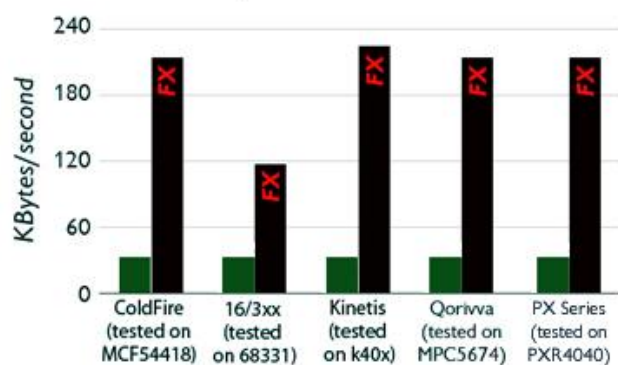
Aside from supporting a wider range of chips a major attraction of the Universal FX is its high speed. For Synchronous architectures such as the Kinetis, Qorivva, ColdFire V2-V4, 683xx, HC16, PX and DSC the communications can run at 4 to 10 times faster than the older Multilink interfaces. (Green bar on graph shows download speed of USB Multilink)

Special offer available until 31st Dec 2014 ------ free upgrade of your copy of PROGxx to the latest release, which will support the FX, with purchase of each FX.

Development Tools supporting the Universal FX

P&E provides a standalone programming utilities (PROGxx) which avoids paying for a Compiler seat if all that is required is device Programming. For Freescale chip families support is provided by the CodeWarrior C package for both chip programming and C debugging. This is also available for the Cyclone Units (more details on the next page). Some chips such as the Kinetis are also supported by a number of other compilers (IAR &Keil) and there is a GDB server allowing Kinetis applications to be developed using the Kinetis Development Studio and the Atollic and Cosmic C debugging environments

Flash Programming Software

An interactive flash programming software package that allows you to program/reprogram both internal and external flash devices in-circuit, via a P&E interface cable. Perfect for development, production line programming, or field firmware upgrades. P&Es products contains our entire library of setup files for this processor, and includes both interactive and command-line versions for use in development and production.

To see which Flash devices P&E support follow this link.
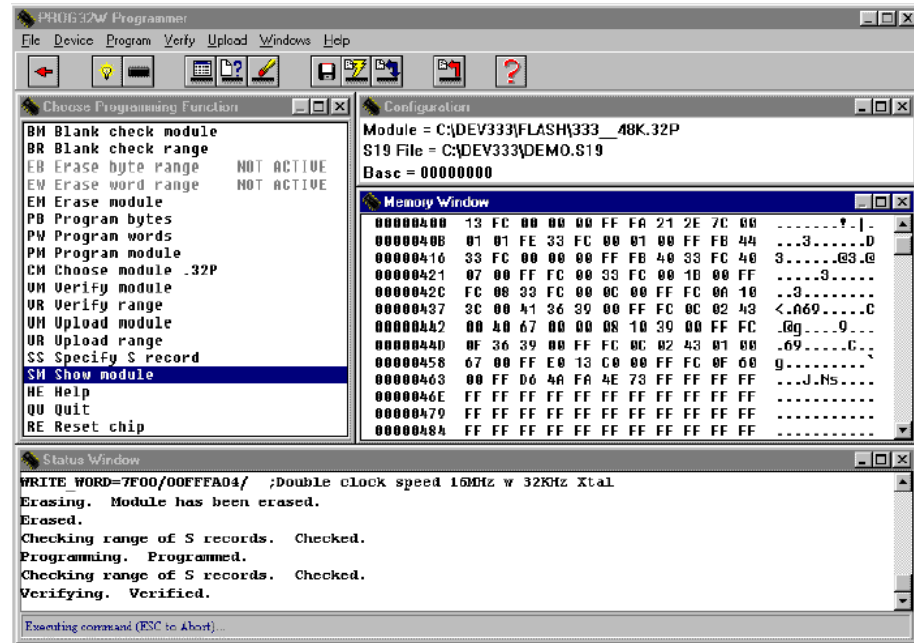
Flash programming functions are :

Program

Verify

Blank check

Upload

Display

Erase

The Cyclone Range of Flash programmers…..

Recommended for high volume production applications

  Cyclone Pro   HC08, HCS08, HC12(S,X,Z), ColdFire v1

  Cyclone Max Kinetis, ColdFire V2-4, Qorivva, PPC5xx/8xx

  Cyclone ARM Cortex – Kinetis, STM32, NXP, TI/Stellaris

Cyclone STM STM32, STM8, PC56   **Cyclone Renesas** R8C, M16C, M32C H8 & tiny

- Interactive programming packages are provided for each of the CPUs supported by the Cyclone for on chip or off chip memory.
- Or you can link the unit to a PC, download multiple target programs to the Cyclones memory and then disconnecting it from the PC when it becomes a manually controlled, standalone flash programmer
- Or they can be driven by a PC via the Ethernet, USB or Serial port by automated commands either using command line instructions or from a C program using the dll provided.
- For the **Cyclone Max** and **Cyclone Pro** if using CodeWarrior or a number of other leading C compilers support for code debugging is integrated into the C Debugging environment.

A Software Development Kit is available that allows multiple Cyclones to be driven by a single CPU for economical operation in large production environments and an SD card can provide additional storage on the Cyclone if required.