The Embedded Newsletter

Cyclone Universal Flash Programmers

**The ultimate range of production and debugging tools
for Embedded Flash CPUs**

The Cyclone Universal

Can be run standalone via 4.3" Touch screen or under PC control via a GUI program, batch files or an API

16 MBytes available for storing up to 8 separate downloads and programming algorithms

Connects to PC via Ethernet, USB 2 (Full Speed) and serial port

Automatic frequency detection of target

Target power switching

Works with 1.6V-5.2V targets

Serial numbering

Includes cables and S/W for flash programming all supported CPUs and external Flash chips

Cyclone Universal works with all these chip families

NXP/Freescale Kinetis, ARM Cortex, ColdFire V1-4, MPC5xxx Qorivva (AKA Nexus), MPC5xx/8xx, Power Architecture S32, PX, DSC, MC56F8xx, MAC7xxx (ARM), StMicroelectronics SPC5, STM8, 68HC08/HCS08/RS08, 68HC12/S12, S12X/12Z	**ARM Cortex M4 currently supports these families:** ATMEL SAMxxx, STM32, NXP M0,M3,M4, Freescale Kinetis (all), LPC, S32, TI-Stellaris LM3S, LM4, TM4C12x, Infineon XMC1XXX, 4XXX Maxim 716xx, Silicon Labs EFM32, EFR32, SiM3, Cypress CYBL-10XX, PSoC®4, PSoC®5, Nordic nR51/52, Toshiba TX00, TX03, TX04 **As well as a wide range of on and off chip SPI and off chip flash memories.**

For more details of this product Cyclone Universal

Advanced Automation licence (included with the FX)
This allows a PC to drive more than one Cyclone simultaneously, including using different target CPUs and target images. In addition multi file manipulation has been added to the Batch and API capabilities. This API can modified Data areas in an image and the status of the Cyclones, targets and images can be read and properties written. A remote display of the screen is available.

The Cyclone Universal FX

And now with faster links to both the PC and the target the Cyclone Universal FX can speed up the production line and add extra security to your programming process.

CPU Support and features are as for the Cyclone Universal with the following enhancements:-

USB 2.0 link now supports "High-speed" protocol (up to 480Mb/sec link to the PC).

1 Gbyte internal memory, no practical limit to # of images held.

SDHC Port for even more space.

For most recent CPUs (e.g. Cortex M0-4, Qorivva and Coldfire) a variant of the communication link to the target is provided that increases the download speed to a max of 120Mb/sec giving up to 10 x faster download of data.

An Advanced Automation Licence (see over) is included with the FX version. Additional security features on the FX include ensuring that if you outsource your production no one can "run off a few units" without you knowing.

For more details of this product Cyclone Universal FX

The Cyclone Universal and Universal FX – 4 Modes of Operation:

- Interactive programming packages are provided for all supported CPU families.

- Or you can link it to a PC, download multiple target programs to it and then disconnect it from the PC. It then becomes a manually controlled, standalone flash programmer for on chip or off chip memory.

- Or it can be driven by a PC via the Ethernet, USB or Serial port with automated commands either using command line instructions or from a C program using the API included in the package.

- With the addition of P&E Windows based Debugger (works with Assembler and C) it can be used to debug code by providing downloading to memory, access to it and the registers, as well as having the ability to set breakpoints, run the CPU at full speed, slowly or in single step mode.

Support for the Cyclone Universal is being provided by a number of leading C compiler manufacturers within their C Debugging environment. A free GDB Server is provided for ARM developers.