GLYN Newsletter
High-Tech Distribution

News Highlights – Issue 19 (October 2007):

FTDI Offers Morph-IC Altera FPGA with USB Interface Module

FTDI, available through GLYN High-Tech Distribution, offers the FTDI Morph-IC module which combines the flexibility of the FTDI FT2232C dual channel USB to parallel FIFO/serial UART interface IC together with an Altera ACEX 1K series FPGA in a compact ready to use module. The power and IO pins of the module are brought out onto 2 x 20-pin, 0.1in pitch headers on the underside of its PCB, allowing easy connection to the pins. The module can also be plugged into a PCB using readily available mating connectors (two supplied).

Morph-IC uses the Multi Protocol Synchronous Serial Engine (MPSSE) interface of the FT2232C to program/reprogram the FPGA over USB in a fraction of a second. No external FPGA programmer or serial EEPROM devices are required to use Morph-IC. The module is powered directly from the USB port and so does not require an external power supply.

Morph-IC comes complete with a CD containing USB drivers, a Windows interface DLL with example code in several different programming languages. A full demo project is included demonstrating how to use and interface to the module. VHDL source code and application software code (in Delphi) is included. Linux drivers and a Linux loader program are also included for those who are interested in alternative operating systems.

The package also includes a Quartus II Software Starter Suite CD courtesy of Altera, which contains software for simulation and synthesis of the on-board FPGA, so no other software is required for FPGA development.

For more details about the Morph-IC, please send us an email at sales@glyn.com.au

Cyan Introduces Embedded Web Server and Ethernet Gateway with USB File Storage Development Kit

Internet access has proliferated to such an extent, that it now seems as if everything will need to have some form of online connectivity or rapidly become obsolete. Many new product designs can consider some form of Internet connectivity to further enhance their capabilities and market demand.

Typical applications for embedded web servers include web-based device management, real-time home or industrial automation control, building security, and remote data acquisition and monitoring (such as in medical equipment and vending machines). Serial-to-Ethernet gateways are also useful for applications such as wireless networks like ZigBee. The addition of USB file storage such as USB flash drives on embedded web servers and Ethernet gateways further increases their versatility such as having the ability to serve more and larger web pages stored on USB flash drives which can also be edited more easily on a PC. The USB flash drives on the web servers and Ethernet gateways can also be used for data logging.

Cyan, available through GLYN High-Tech Distribution, is offering its eCOG1X Development Kit which can be utilised for the development of embedded web server and Ethernet gateway with USB file storage. The eCOG1X MCU comes integrated with a 10/100 Ethernet MAC, up to 512KB Flash and 24KB SRAM and USB 2.0 On-The-Go interface. The eCOG1X microcontroller is mounted on a detachable daughter card, which enables the different product options within the eCOG1X family to be supported with the same set of peripherals on the eCOG1X Development Kit board.

The eCOG1X Development Kit has been designed to complement Cyan's eCOG1X family of 16-bit low power microcontrollers and together with CyanIDE® Integrated Development Environment provides the embedded systems designer with a fully integrated development platform that will enable them to quickly configure and develop their application. The CyanIDE package comes complete with an editor, full ANSI C compiler, simulator, debugger and in-system programmer. Also included is Cyan's unique Configuration Tool that allows the microcontroller's peripherals to be easily configured using a simple drag and drop GUI.

For these applications, Cyan provides detailed application notes and source codes such as:

• eCOG1X Web Server with USB File Storage – includes source codes (AN65)
• uIP TCP/IP Stack for eCOG1X – includes source codes (AN57)
• Demonstrating TFTP with uIP – includes source codes (AN48)
• eCOG1X USB Mass Storage with FAT File System Library – includes source codes (AN54, AN42)
• eCOG1X USB Hardware Requirements – includes circuit schematics (AN53)

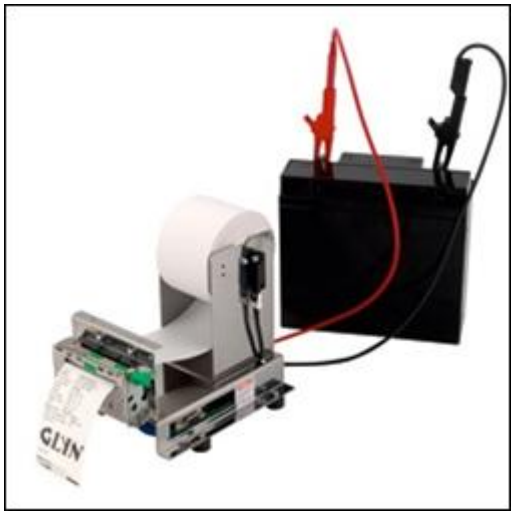
Aside from the royalty-free and open source eCOG1X port of the popular uIP TCP/IP stack, the TCP/IP stack from CMX Systems is also available for the eCOG1X. A CMX web server demo program is available from Cyan.

The peripheral (or base) board on the eCOG1X Development Kit supports plug-in module for each MCU type and has a wide range of peripherals to support other applications aside from web servers, Ethernet gateways and USB file storage. The peripheral board includes:
• 8Mb external Flash, 128Mb SDRAM and 32Kb serial EEPROM
• 10/100 Mbps Ethernet PHY
• USB 2.0 Low/Full/High Speed OTG Interface
• PWM Motor Control Support
• Fourteen 12-bit SAR ADC inputs with 10, 8 or 6 bit modes
• Dual 12-bit DAC outputs with max 4 µsec conversion time
• Support for 4 character 7 segment LCD
• Support for ISO7816 smart card including SIM Card Holder
• An Audio Codec with integrated headphone driver
• RF interface header
• Multiple serial connectors
• JTAG support

For more information about the eCOG1X Development Kit for embedded web server, Ethernet gateway and USB file storage applications, please send us an email at sales@glyn.com.au

GLYN Introduces its New Kiosk Printer Series

Now for 12 VDC and Battery Applications



Our GLYN kiosk printers based on thermal direct printing are mainly designed for self-sustaining POS/POI systems and vending machines. For these products an increased temperature range and longevity are extremely important.

GLYN kiosk printers print on thick papers at a speed of up to 250mm/sec. After printing, the paper is completely or partially cut off depending on the application requirements. The optional presenter provides a safeguard against vandalism.

Furthermore, the GKP series offers a high degree of mechanical as well as electrical flexibility. Paper widths of 60, 80 and 112mm are available, which can be combined with various roll sizes. There are also several mounting alternatives with regards to the paper pathway. The integrated interface board has a serial, parallel or USB connection.

These premium components guarantee outstanding quality. The print unit and automatic cutter are based on Seiko Instruments' CAP 9000 series. The core of the controller board is a RENESAS M16C microcontroller with flash memory which enables firmware adjustments after assembly. Logos, barcodes, characters or low current mode can be subsequently adapted. The framing and paper mount are made of stainless steel.

In addition to the 24 VDC kiosk printer series, GLYN´s new 12 VDC series can also be used for battery-powered applications.

Model	**GKP92**	**GKP93**	**GKP94**
Printer type	Thermal line dot system		
Resolution	8 dots/mm (203 dpi)		
Number of dots/line	464	640	864
Width (mm)	58	80	108
Speed	max. 250mm/s	max. 250mm/s	max. 250mm/s
Service Life	min. 150 km	min. 150 km	min. 150 km
Operating Temperature	-25°C to 65°C	-25°C to 65°C	-25°C to 65°C
Auto Cutter	Included	Included	Included

Max. Paper Width (mm)	60	82,5	112
Paper Thickness (µm)	55-155	55-155	55-155

For more details about GLYN's Kiosk printers, please send us an email at sales@glyn.com.au

URT Releases 7" TFT LCD Displays with LVDS Interface

Consumers are demanding more realistic video, 3-D graphics and photo-realistic images in the office and in the home. Solutions exist today to move this high-speed digital data both on very short and very long distances: on a printed circuit board (PCB) and across fibre or satellite networks. Moving this data from board-to-board or box-to-box, however, requires an extremely high-performance solution that consumes a minimum of power, generates little noise (must meet increasingly stringent FCC/CISPR EMI requirements), is relatively immune to noise and is inexpensive. Unfortunately existing solutions are a compromise of these four basic ingredients: *performance, power, noise, and cost*.

LVDS which stands for Low Voltage Differential Signalling addresses this need. It is a way to communicate data using a very low voltage swing (about 350mV) differentially over two PCB traces or a balanced cable. LVDS is a low swing, differential signalling technology which allows single channel data transmission at hundreds or even thousands of Megabits per second (Mbps). Its low swing and current-mode driver outputs create low noise and provide very low power consumption across frequency.

URT introduces its new 7" TFT LCD displays with LVDS interface and with 800xRGBx480 dots resolution. Module size (W x H x T) is 163.9 x 103.95 x 6 mm while viewing area is 155.2 x 94.24 mm. Background colour is white and with LED backlight. It also has DC/DC converter, VCOM circuitry built in, touch panel option, high brightness of 500 nits, contrast ratio of 400:1, and an anti-glare polarizer.

For more details about the 7" TFT LCD displays with LVDS interface from URT, please send us an email at sales@glyn.com.au

High Quality Antennas Now Available from EAD

GLYN is now offering high quality 2.4GHz antennas from UK-based EAD which is ideal for Bluetooth, ZigBee/IEEE 802.15.4 and Wi-Fi applications. 2.4GHz antennas include the Stubby, Knuckle and Blade models.

The Stubby antenna with SMA male connector measures 32x8mm (incl. SMA) for the straight model and 34.5x8mm (excl. SMA) for the right-angle model and has 0 dBi peak gain.

The Knuckle antenna with SMA male connector measures 138 x 13 mm (length x diameter) and has 2 dBi peak gain.

The Blade antenna with RG174 cable and MMCX connector measures 72 x 19 x 7mm (max) and has 2 dBi peak gain, with 10W power rating making it ideal for telematics/telemetry applications.

GSM antennas from EAD are also available.

For more details about the EAD antennas, please send us an email at sales@glyn.com.au

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