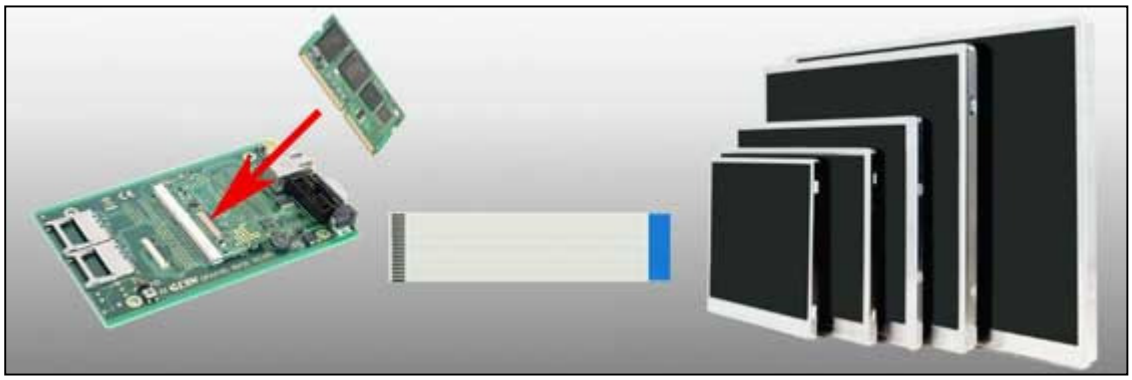
GLYN Newsletter
High-Tech Distribution

News Highlights – Issue 41:

GLYN Introduces Low Cost Complete TFT Display Solution



GLYN introduces a complete TFT display solution making it easier for its OEM customers to develop products that require TFT displays. This solution includes a GLYN ARM9 CPU module, an optional graphics baseboard with various hardware interfaces, a family of TFT displays ranging from 3.5" to 7", and a range of software development tools. GLYN offers a low cost Starter Kit to facilitate product development.

ARM9 CPU Module

The GLYN ARM9 module in SO-DIMM-144 format offers customers with a high-end solution for direct TFT control. The module has TOSHIBA TMPA900 controller from the ARM9 series, Ethernet (MAC+PHY), USB Device / USB Host, and 256MB Flash / 64MB DDR RAM. The module has a variety of interfaces that are accessible directly for user applications. The module significantly simplifies the design of a system that has a human/machine interface while still needing a variety of external interfaces. Directly related to the hardware design, different operating system variants are available. For example, a complete free Linux tool chain is one option. Areas of application for the module are battery-operated devices, measurement devices, operating panels, or POS terminals.

A significant feature of the ARM9 module is the integrated LCD controller for STN/TFT colour displays, which can be controlled directly up to a maximum resolution of 1024 x 768 pixels. In addition to the LCD controller, the module has a powerful LCD data processing accelerator (LCDDA-LCD Data Process Accelerator). The LCDDA works independently of the core and the LCD controller, offering the new functions needed for advanced new devices today. These functions can be broken down into three categories: image scaling, image rotation, and image mixing (alpha blending).

User input is entered using the integrated touch screen controller. So the module has all the hardware components you need for a cost-effective design, integrated directly.

- Processor TMPA900CMXBG, 200 MHz
- RAM 64 MB DDR-RAM
- ROM 256 MB NAND-Flash
- Power Supply Single 3.0V to 3.6V
- Size SO-DIMM 144
- TFT-Connector (option)
- Temp.-Range -20°C..85°C
- 10/100Mbps Ethernet (MAC+PHY)
- High-Speed USB 2.0 (480Mbps)
- Full-Speed USB Host 2.0 (12Mbps)
- LCD Controller
- CMOS Camera Interface
- Several Peripheral Interfaces: UART, SD-CARD, I2C, PWM, Keypad, Digital Audio (I2S), Configurable Serial Peripheral Interface, 4/5 Wire Touch Screen

One CPU Module - One Baseboard – One Cable – Eight TFTs

To accelerate the development of devices based on the TMPA900 module, GLYN offers a TMPA900 Module Starter Kit. The kit provides the entire set of technology needed to implement a display application, together with the user interface software required. In addition to the module itself, it includes a baseboard in Europe card format, which is naturally also suitable for production use and also available individually.

The baseboard provides the SO-DIMM-144 connector, 5 - 35V power supply, GLYN TFT Family Concept Connector for 3.5” to 7” TFT display, two SD card slots, plus various interface connectors (JTAG, USB host, USB device, Ethernet, UART, audio in/out).

A 3.5" LCD touch screen from our EDT OEM line up (see figure) is also included in the Starter Kit. With the connector provided on the baseboard, any TFT in our family concept can be connected directly. To make the board useful for additional displays, all display signals are output through a single terminal strip.

Model No.	*Panel Size (Diagonal)*	*Resolution*	*Outline Dimensions*
G-ET0350G0DM6 (DH6)	3.5”	320 x 240	76.8 x 63.8mm
G-ET0430G0DM6 (DH6)	4.3”	480 x 272	105.5 x 67.2mm
G-ET0500G0DM6 (DH6)	5.0”	800 x 480	118.5 x 77.6mm
G-ET0570G0DM6 (DH6)	5.7”	320 x 240	124.7 x 100mm
G-ET0570G2DM6 (DH6)	5.7”	320 x 240	142.1 x 100mm*
G-ET0570G0DMU (DHU)	5.7”	640 x 480	124.7 x 100mm
G-ET0570G2DMU (DHU)	5.7”	640 x 480	142.1 x 100mm*
G-ET0700GODM6 (DH6)	7.0”	800 x 480	166 x 105.4mm

Note: DH6/DHU = with Touch Panel *with fastener

Additional interfaces are the USB device and host, as well as an Ethernet connection. An audio DAC is also integrated, along with two SD card slots (connection through SD-Host Ctr. and SPI).

An operating system and graphics library are provided by our software partner Segger (www.segger.com). A Linux board support page is available from BPlan (www.bplan-gmbh.de). An implementation of QT or GTK+ is also available using the Ucross system by Kernel Concepts (www.kernelconcepts.de). Atollic TrueSTUDIO™ Lite version IDE is available for free download (www.atollic.com).

For more details about GLYN TMPA900 Module Starter Kit or related products, please send us an email at sales@glyn.com.au

Atollic Appoints GLYN As ANZ Distributor

Atollic, a software design centre focusing on embedded system development tools, has recently appointed GLYN as its distributor for Australia and New Zealand. Founded in 2003 with offices in the UK (London) and Sweden (Jönköping), Atollic provides a wide range of innovative, interoperable, cross-platform embedded system development tools for a range of microcontrollers. Atollic embedded system development products include TrueSTUDIO™, TrueANALYZER™, and TrueINSPECTOR™.

Atollic TrueSTUDIO™ is the premier C/C++ development tool for embedded developers, reducing time to market and increasing efficiency in your next embedded systems project. TrueSTUDIO™ creates a paradigm shift in the embedded industry with its wide feature-set and unprecedented integration, and supports many popular microprocessor families including Atmel AT91SAM, Texas Instruments Stellaris (Cortex–M3), STMicroelectronic STM32, and Toshiba TX (ARM9).

TrueSTUDIO™ is based on the ECLIPSE™ IDE framework, contains integration well beyond most existing embedded systems development tools, and its feature-set rivals that in best-of-breed tools for PC development. TrueSTUDIO™ includes a highly optimizing C/C++ compiler, a state-of-the-art editor, and a professional debugger. Built-in features for complexity management reduce the burden on developers to keep track on the code and related development activities. Additional benefits are the excellent target support, team collaboration features, code quality features, and the soft migration path into UML modeling. The product is also very cost-effective, as it comes in a free Lite version (unlimited code-size and usage-time) as well as commercial versions which is recommended for professional use.

- Powerful IDE based on ECLIPSE™
- C/C++ compiler & debugger for ARM & PC
- Parallel build for faster compilation
- Multiprocessor debug with JTAG support
- UML editors for graphical modeling
- Source code review
- Version control system client
- Bug database client
- Aircraft-grade dynamic code analysis

Atollic's other products include TrueANALYZER™, a professional tool for dynamic code coverage analysis while running in the target CPU; and TrueINSPECTOR™, a professional tool for static source code inspection.

To download the free Lite version of TrueSTUDIO™, please visit Atollic's website – www.atollic.com

For more details about Atollic products, please send us an email at sales@glyn.com.au

Fastrax Continues to Minimize GPS Module Size and Maximize Sensitivity, Sets a New Benchmark with Miniature Fastrax IT520

Form Factor Cut in Half with No Compromise on Performance

Fastrax, available through GLYN High-Tech Distribution and a pioneering supplier of high performance GPS receivers, Software GPS solutions and tracking systems for location-aware devices, recently introduced the Fastrax IT520, the smallest GPS receiver in Fastrax's IT500 series GPS modules. The Fastrax IT520 features a form factor of only 0.4 x 14.0 x 2.3 mm, allowing for easy utilization in a variety of applications, including asset tracking and navigation systems, and battery operated consumer products.

The Fastrax IT520 provides all of the same features and extremely high performance as the widely used and highly appreciated Fastrax IT500, packed into an impressively miniature form factor. The new module takes 50 percent less space than its predecessor, allowing for inclusion into tiny casings. With the optional built-in USB 2.0 interface, Fastrax IT520 is also ideally suited for GPS mouse and Mini PCI card applications.

"In GPS modules, size certainly does matter", said Taneli Tuurnala, CEO and President, Fastrax. "The small IT520 module was developed based on feedback from our customers. Location-based features and applications are introduced in more and more innovative devices, and users are getting accustomed to the added benefits. In the coming years, we'll see GPS modules integrated into an increasing number of mobile phones, digital cameras, sports accessories, wristwatches, and the like."

In addition, Fastrax introduced the Fastrax UP501 GPS module with an integrated antenna. The updated and improved version of the Fastrax UP500 is footprint and pin compatible with its predecessor. The module is now based on the same Mediatek MT3329 GPS chipset as the Fastrax IT520 and the Fastrax IT500. All these modules have 66 acquisition channels and 22 tracking channels, and feature extraordinarily high -148dBm cold start sensitivity and -165dBm navigation sensitivity. The optimized performance enables navigation in even the most demanding applications and environments, and ensures a solid fix even in harsh GPS visibility environments.

"While waiting for location information to appear, every second feels long", added Taneli Tuurnala. "Ensuring a smooth user experience in consumer applications requires fast and reliable operation, and long battery life. Under the hood, this translates into a combination of high sensitivity, fast signal acquisition and low power consumption. It is our aim to continue providing the best possible GPS module offering for these demanding environments and applications."

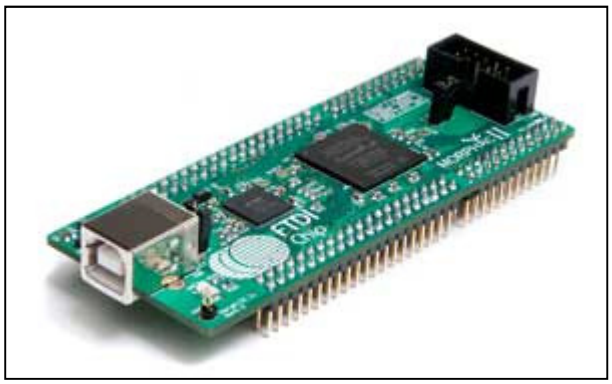
The Fastrax UP501 is electrically and mechanically compatible with the Fastrax UP500, making upgrading easy for the designers. This saves considerable amounts of development time, testing, documentation and support costs, while reducing time to market to an absolute minimum. The UP501 is also available with optional onboard battery back-up and RS232 connectivity.

Samples and volume production of Fastrax IT520 and Fastrax UP501 are available now.

For more details about Fastrax IT520 and UP501, please send us an email at sales@glyn.com.au

Powerful FTDI FPGA Platform Simplifies USB 2.0 Integration, Reduces LSI Development Time and Supports Sub-100ms Hardware Reconfiguration

Flexible Morph-IC-II platform from FTDI combines Altera Cyclone®-II FPGA with silicon and software for Hi-Speed 480Mbit/s USB



USB silicon and software specialist Future Devices Technology International Limited (FTDI), available through GLYN High-Tech Distribution, has launched a flexible and powerful development platform that speeds the creation of FPGA-based applications and simplifies the integration of Hi-Speed 480Mbit/s USB communication in advanced logic circuit designs.

The Morph-IC-II platform combines an Altera Cyclone®-II FPGA with high performance USB 2.0 capabilities that facilitate Hi-speed communications with ultra-fast, sub-100ms FPGA programming/re-programming. This makes Morph-IC-II ideal for applications which require users to reconfigure hardware functionality 'on-the-fly' by downloading new software over USB : "morphing" the hardware. As well as enhancing application flexibility, hardware reconfiguration via USB can also reduce BoM costs as the FPGA need only be sized for the most complex discrete function rather than all potential functions.

FTDI's new platform incorporates all of the hardware, software and documentation needed for 'out-of-the-box' FPGA development. The hardware comprises a compact development module incorporating an Altera EP2C5F256C8N Cyclone-II FPGA and an FTDI FT2232H USB-to-multipurpose UART/FIFO IC. One channel of the FT2232H is utilised for FPGA-to-PC communications and supports data transfer speeds of up to 40Mbyte/s. The second channel of the FT2232H is used to configure and reconfigure the FPGA over USB. USB programming eliminates the need for Flash configuration memory normally required to configure SRAM-based FPGAs.

The Morph-IC-II features up to 80 general purpose I/O (GPIO) lines ensuring optimum flexibility for connecting the FPGA to external circuits and interfaces. USB software interfacing is provided via FTDI's royalty-free drivers and sample FPGA reference designs help to speed prototyping and further reduce development times. The FPGA can be rapidly programmed and configured using Altera's Quartus II development software, which is available as a free download from the Altera website.

Altera's EP2C5F256C8N FPGA offers 4,608 embedded FPGA logic elements (LEs) and 26 embedded logic RAM elements for the implementation of LSI and entry-level VLSI (very large scale integration) designs with up to 80,000 gates and 119Kbits of RAM. The FTDI FT2232H IC offers USB-to-UART and USB-to-high-speed FIFO options for general-purpose communications with PC application software. The FT2232H also features a Multi Protocol Synchronous Serial Engine (MPSSE); a configurable serial controller that allows designers to implement JTAG, SPI, I2C or other application-specific serial interfaces.

Morph-IC-II is supplied with FTDI's VCP (Virtual COM port) and D2XX Microsoft Windows and Linux USB drivers, eliminating the need for additional driver development for most applications. VCP drivers make the USB device appear to the PC as an additional COM port, enabling application software to access the USB device in the same way as it would access a standard port. The D2XX drivers, which offer direct access to the USB device through a DLL, provide an API-based interface for developers to interact with the hardware using C/C++, C#, Visual Basic, Embarcadero Delphi® and National Instruments LabVIEW.

As well as supporting FPGA application development and the FPGA-based prototyping of high-volume ASIC applications, Morph-IC-II is also an ideal education platform for developers who want to learn more about FPGA design.

FTDI also allows customers to use the Morph-IC-II schematics and programming utility as a reference design for their own PCB developments.

The Morph-IC-II development platform is available now.

For more information on FTDI Morph-IC-II, please send us an email at sales@glyn.com.au

Swissbit Appoints GLYN As ANZ Distributor

Swissbit AG recently appointed GLYN as its exclusive distributor for Australia and New Zealand. Swissbit is the largest independent DRAM module and Flash storage manufacturer in Europe and is a global leader in technology supplying high quality memory solutions to the industrial, embedded, telecommunications, military, automotive, and aerospace markets. Swissbit was created from a management buy-out from Siemens Memory Products in 2001 and has over 18 years of combined knowledge and experience in the memory industry.

Embedded and Industrial systems require a variety of memory and storage solutions. In contrast to the PC and consumer market, Swissbit industrial products are exposed to critical environmental conditions, are designed for longer life cycles, and therefore must be highly reliable. Other advantages of industrial memory products over commercial memory products include availability of detailed datasheets, fixed BOM, issuance of PCN/PDN, long term availability, highest data security due to single level cell (SLC) technology, faster speed, known and high write/delete cycles (2 million), known and high MTBF (3 million hours), wider operating temperature range (-40C to +85C), and provision for last time buy option.

Swissbit's Industrial Solid State Drive (SSD) family covers all relevant interfaces, including Compact Flash Card (CFC), Secure Digital Card (SD), IDE / Parallel SSD (PATA), Serial SSD (SATA), and USB Flash Drive (UFD), in combination with state-of-the-art flash handling utilising the qualities of SLC NAND flash.

Swissbit also offers an extensive portfolio of un-buffered and registered DIMMs and SO-DIMMs, as well as a large number of different low profile, mini-, and micro-DIMM designs. Their Industrial/OEM product line is designed according to the latest JEDEC standards and covers all technologies from asynchronous RAM (EDO/FPM) to DDR3. With Chip-On-Board (COB) and Surface-Mount-Technology (SMT) Swissbit offers memory products optimised for many different system platforms, applications, and environment.

Swissbit also provides OEM Custom retail pack, and OEM card labelling (MOQ apply).

For more information on Swissbit products, please send us an email at sales@glyn.com.au

FTDI Launches USB 2.0 Module to Replace DB9 RS232 Connector on Legacy Boards

Future Technology Devices International Limited (FTDI), available through GLYN High-Tech Distribution, recently announced the availability of the DB9-USB-RS232 range of modules, designed to replace a DB9 based RS232 connector, on an existing board design, with a USB 2.0 connector interface. The modules feature a standard USB 'mini-B' type connector in a module that fits the PCB footprint of a standard 9-pin DB9 connector. The modules are designed to provide a fast and simple method of replacing a DB9 RS232 interface with USB 2.0 connectivity, without the need to change an existing PCB board design.

Two DB9-USB-RS232 modules are available to replace male or female DB9 connector versions. The modules are targeted at systems equipped with legacy DB9 based RS232 connectors, which often face connection issues to modern PCs, laptops and other equipment. The modules provide a mechanism to extend the life cycle of these systems, while providing enhanced capability through the introduction of USB 2.0 connectivity available via the DB9-USB-RS232 modules.

The DB9-USB-RS232 modules contain all the electronics needed to carry out the conversion between RS232 and USB. The modules utilise the popular FTDI FT232R, USB 2.0 to serial UART converter IC, which handles the USB protocol conversion. The FT232R device converts from USB to a serial UART interface, which is then level-shifted into RS232 signal levels, within the DB9-USB-RS232 module. Power to the module is supplied by the USB 2.0 connection. The modules support a maximum transfer rate of 1MBits/s on the RS232 interface.

The DB9-USB-RS232 modules are supplied complete with FTDI's royalty free drivers, which enable a device to be integrated as an additional, (virtual) COM port into an existing software application, thus offering quick and easy installation without the need for custom driver development or user software redesign. The range of drivers includes Microsoft WHQL certified drivers for Windows based Operating Systems, drivers for Linux and Mac OS operating systems. All drivers are freely available for download from the FTDI website.

For more information on FTDI DB9-USB-RS232 modules, please send us an email at sales@glyn.com.au

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