GLYN Newsletter
High-Tech Distribution

News Highlights – Issue 42

FTDI Releases FT232H, Single Channel Hi-Speed USB to UART/FIFO Interface IC

Supported by UM232H – FT232H Development Module

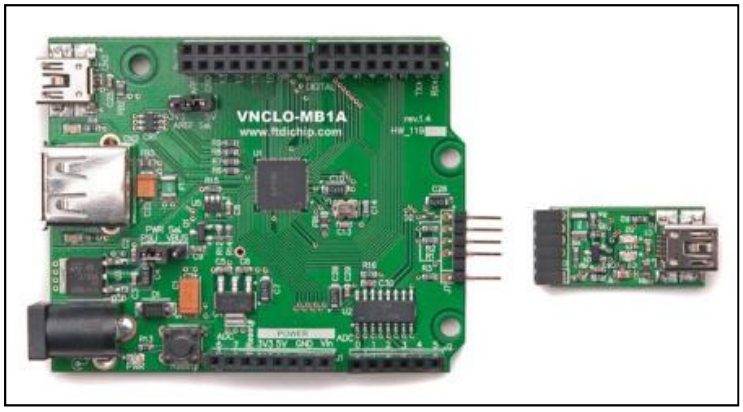
FTDI, available through GLYN High-Tech Distribution, announced the release of the FT232H USB2.0 Hi-Speed IC, thereby strengthening its portfolio of USB Hi-Speed interface chips. This versatile single channel USB to UART/FIFO interface can be configured via EEPROM into a variety of different serial or parallel interfaces. Bundled with FTDI's USB device drivers, it enables engineers to easily add Hi-Speed USB connectivity into new and legacy peripheral designs with the minimum of effort. This highly integrated USB device contains USB, serial and parallel protocol engines, eliminating any requirement for USB specific firmware development. The UM232H evaluation module that accompanies it, allows rapid prototyping and testing of the FT232H's suitability for incorporation into new system designs.

As well as supporting asynchronous serial (UART) interfacing, the FT232H can be configured to interface to synchronous IOs (such as SPI, I^2C, JTAG, and FPGA programming interfaces) via its inbuilt Multi-Protocol Synchronous Serial Engine (MPSSE), which is capable of communication speeds of up to 30Mbits/s. It can also be utilised by design engineers to implement their own customised synchronous serial bus protocols. The FT232H's newly developed FT1248 bus is a proprietary, half-duplex, synchronous serial/parallel interface option capable of communicating with external logic at up to 30Mbytes/s. It can trade off bandwidth against the number of physical data lines (one, two, four or eight) available to connect the FT232H to external logic, thus providing optimum flexibility to the system designer.

For more details about FT232H and UM232H, please send us an email at sales@glyn.com.au

FTDI Launches VNCL0-START1 Development Kit for the Vinculum-II (VNC2) USB Host/Device Controller

Vinculo library development available to help port existing Arduino code to Vinculo environment



FTDI, available through GLYN High-Tech Distribution, announces the launch of the Vinculo Starter Kit. This is a development platform for the Vinculum-II (VNC2) USB Host/Device controller, combining the Vinculo motherboard with the VNC2 Debug/Programming module. The Vinculum-II supports dual USB Host/Device interfaces, FIFO, SPI, I^2C, PWM, and UART. On board is a 10 bit, 8 channel ADC and 38 GPIO which are available for quick prototyping. This development platform features a free software development suite including a full featured C compiler, real time operating system, and USB Host/Device software stack for HID, CDC, HUB, printer and BOMS (FAT file system).

The new starter kit (VNCLO-START1) provides a cost-effective rapid application development solution at a cost effective price.

Pre-compiled libraries accelerate development whilst reducing development effort, cost and time to market.

- FTDI provides production quality libraries, with FTDI's renowned, long term support commitment
- Ongoing development program to support new USB Device Class drivers
- Ongoing development program to support third-party add-ons
- Royalty free WHQL certified FTDI COM and D2XX Class driver libraries
- Configuration wizard for Vinculum tool chain, to jump-start Vinculo Application Development
- Vinculo library development to help port existing Arduino code to Vinculo environment

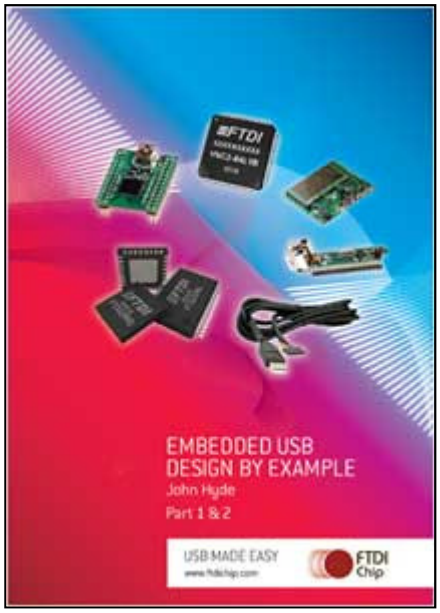
For more information on FTDI VNCL0-START1, please send us an email at sales@glyn.com.au

FTDI Releases "Embedded USB Design by Example" Book from John Hyde

Free e-book download including software code examples and FTDI documentations

The next part of the eagerly awaited practical engineering guide "Embedded USB Design by Example", commissioned by FTDI to assist designers, is now available. This book is written by the highly regarded technology author, and USB guru, John Hyde. The book complements, and builds upon, FTDI existing portfolio of product documentation by guiding design engineers through the steps necessary to add USB connectivity to their system design and identifies techniques to overcome the various practical challenges they face – in both hardware and software.

Part 1 of this popular book dealt with the basic principles of USB, covering the finer points of the USB architecture, looking at fundamental USB theory, explaining how to build a USB device that can plug into Windows or OSX platform, describing how to carry out serial and parallel device conversion and how to connect to other USB devices.



Part 2 of the book deals specifically with the practicalities of USB hardware and software development using practical examples based on the FTDI's family of dual USB host controllers, the Vinculum-I and the recently released Vinculum-II. The book gives detailed examples of how these ICs can be utilised by progressively guiding the reader through various projects which give step-by-step instructions on constructing hardware and developing the associated firmware/software using the free-of-charge Vinculum-II software development tool-chain. Each project stage builds on previous stages, while explaining to the user the reasons behind each addition to the project. Additionally it gives the reader useful hints and tips for practical software/hardware USB design.

The book comes complete with a copy of all the developed "C" source code examples for each project, as well as all the complete hardware details.

The book supports FTDI's philosophy of "*USB Made Easy*".

Part I and II of "Embedded USB Design by Example" including software code examples and documentation are available to download from the FTDI website:

http://www.ftdichip.com/Support/Documents/TechnicalPublications/USBDesignByExample_registration.htm

Sunray ISM Band Wireless Transceiver Modules Now Available from GLYN

Sunray Technology Ltd has recently appointed GLYN as its exclusive distributor for Australia and New Zealand.

Founded in 2004, Sunray Technology Ltd is a manufacturer of wireless transceiver data modules and wireless networking products. Wireless transceiver modules are available in 433, 470, 868, 915 and 2400MHz ISM/SRD band at various transmission power levels. Sunray RF modules can be controlled using serial interface and achieves low power consumption during normal operation and sleep mode.

Typical M2M applications for Sunray RF modules include:

- AMR - Automatic Meter Reading
- Wireless alarm and security system
- Home automation
- Low power telemetry
- Radio modem can be used for sports training & competition
- RF transmitter wireless electronic display screen and queuing machine
- Wireless sensor
- Wireless RS232/RS485 conversion/connector
- Point to multi-point wireless network, wireless on-the-spot bus and automatic data collection system

For more details about Sunray wireless transceiver modules, please send us an email at sales@glyn.com.au

Bluegiga Releases eHealth Products for Medical, Health and Fitness Applications

First in the world Continua certified Bluetooth Gateway available now

Bluegiga Technologies, available through GLYN High-Tech Distribution, announced recently the availability of eHealth products for medical, health and fitness applications. The new Continua compatible products can be used in various health and medical applications by OEMs and system integrators. Bluegiga eHealth products offer an open standard, easy-to-use platform for building Bluetooth certified and Continua compliant wireless sensors and networking them to customer back end systems.

Continua certified Bluegiga eHealth Gateway connects Bluetooth wireless sensors to back end networks through different interfaces. The product is ideal for an OEM or integrator planning to add gateway functionality from local wireless to wired WAN or mobile networks. Bluegiga OEM modules easily integrate Bluetooth wireless technology to any sensor or device with range requirements up to 1000 meters. The OEM modules are available with Bluetooth Health Device Profile and optional IEEE agent and manager implementations.

"Using standard wireless technologies in the health and medical applications is a fast growing market. Continua Health Alliance is promoting Bluetooth-based wireless products to enable global manufacturer independent compliance between different devices" comments Mikko Savolainen, Bluegiga's Vice President of Product Management. "Bluegiga is the first in the world to offer a complete end-to-end solution that meets the compliance of Bluetooth Health Device Profile and Continua IEEE standards. Bluegiga's Continua certified eHealth Gateway for building networks and Bluetooth eHealth modules for sensor end are available now".

Bluegiga eHealth Bluetooth Modules

eHealth Bluetooth Modules are engineered to support virtually any health, medical or fitness application requirement where Bluetooth wireless technology is needed for data or audio communications.

Bluegiga's OEM modules family incorporates our eHealth Bluetooth protocol stack and carefully designed hardware and antenna solution, simplifying customer integration project while providing the maximum connection distance.

Bluegiga eHealth Bluetooth Gateway

eHealth Bluetooth Gateway product family offers simple and efficient network connectivity for Bluetooth enabled medical, health and fitness devices. Built on a Linux™ operating system platform, our gateway devices offer flexible operating modes for data routing, application hosting, and protocol conversation.

Bluegiga eHealth gateway devices incorporate Bluegiga's latest generation long range Bluetooth module increasing range three or four times when compared to other competing Bluetooth gateways. This makes the Bluegiga Bluetooth eHealth Gateway an ideal solution for in-home, clinic, or hospital environments.

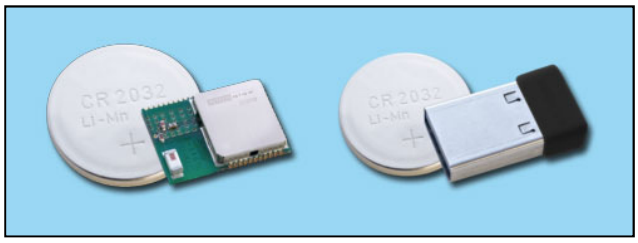
For maximum flexibility and application customization, Bluegiga offers an eHealth Gateway SDK . The eHealth Gateway SDK provides example applications source code and other development tools for software developers to extend gateway functionality to fit their unique application and back end system requirements.

The eHealth Bluetooth Gateways are available in several product variants that combine multiple Bluetooth radios with 2G/3G, Wi-Fi and ethernet connectivity in a single, integrated platform. They are capable of supporting from 7 to 21 simultaneous Bluetooth connections making them an ideal solution for networking multiple medical or health and fitness devices to back end systems.

For more details about Bluegiga's eHealth products, download the eHealth guide here or send us an email at sales@glyn.com.au

Bluegiga Releases Bluetooth Low Energy Product Family

Enables device manufacturers to integrate ultra-low power connectivity with incredible ease, opening the door to a rapidly growing market for low power wireless devices



Bluegiga Technologies, available through GLYN High-Tech Distribution, launches its new Bluetooth low energy product family. Bluegiga's initial Bluetooth low energy products include the BLE112 Bluetooth low energy module and a BLED112 Bluetooth low energy USB dongle. Both products offer everything needed to build a Bluetooth low energy application, including Bluetooth low energy radio, Bluetooth low energy stack, micro controller, and development tools to embed customer applications within the products.

"I think Bluetooth low energy can become a game changer for the low power wireless connectivity market. It enables an entirely new set of innovative applications not feasible with current Bluetooth technology. Applications like health and fitness devices, proximity tags, remote control and sensing, and personal watches will now be able to take advantage of Bluetooth technology", comments Tom Nordman, Bluegiga's VP of sales and marketing.

The BLE112, Bluetooth low energy single mode module, is targeted for sensors and accessories requiring low power connectivity. The BLE112 is a complete, ready to integrate Bluetooth low energy OEM module with antenna, radio, Bluetooth stack and flexible hardware interfaces to connect sensors, displays, or other peripherals. Full customer applications can be embedded within the BLE112 module eliminating the need of an external microcontroller. The BLE112 can be powered by standard 3V coin cell batteries or two AAA batteries and in its lowest power sleep mode only consumes 400nA and can wake from sleep in a few hundred microseconds.

The BLED112 Bluetooth low energy USB dongle is well suited for personal computers or other legacy devices with a USB port that don't support the Bluetooth 4.0 standard. The BLED112 can operate as virtual COM port or USB HID device making it ideal for HID accessories like keyboards and mice as no driver is needed.

With the launch of our Bluetooth low energy product family, Bluegiga sets the standard by providing developers with flexible, easy to use, development tools to embed customer applications within the BLE112 and BLED112. BGScript™ is a scripting language enabling rapid development

of Bluetooth low energy applications that can reside within BLE112 or BLED112 memory, eliminating the need for a separate microcontroller. Bluetooth 4.0 allows companies to develop manufacturer specific Bluetooth profiles and with our BGProfile Toolkit™ developers can tailor the profiles to fit their specific application needs. For even more flexibility Bluegiga will also offer C-level APIs to its Bluetooth low energy stack allowing developers to use standard development tools to create highly customized Bluetooth low energy applications.

"Our Bluetooth low energy product family is a great fit for sensor and device manufacturers wishing to add ultra-low power connectivity to their devices. With the BLE112 and BLED112 we have really strived to create products that are unsurpassed in ease of use while still being powerful and highly flexible. And by the end of 2011 you are going to see a whole family of Bluetooth low energy products addressing a wide variety of applications and markets", says Mikko Savolainen Bluegiga's VP of Product Management.

For more details about Bluegiga's Bluetooth Low Energy Products, please send us an email at sales@glyn.com.au

Telit's Future-proof HE Module Series Offers Extensive Functionality

M2M specialist adds HSPA-BGA modules to global portfolio

Telit Wireless Solutions, available through GLYN High-Tech Distribution and a global leading specialist in wireless machine-to-machine (M2M) technology, is launching the Telit HE863 - the first model in a new module series. The HE863 is a powerful, low-cost and fully equipped HSPA M2M module in a ball grid array (BGA) form factor with embedded GPS receiver. The module is intended for data transmission devices with a long lifetime that are intended for long-term use even after 2G network switch-off and require high throughput. Examples include smart metering, healthcare, surveillance and tracking applications.

Smart metering devices such as electricity and water meters have been in use for several years. For this reason, many manufacturers are already using 3G data transmission to future-proof their products against non-availability of the 2G network. Previously Telit only offered 3G technology in connectorised products. To complete the product range, the HE series now includes 3G modules with BGA technology for the first time.

Telit's aim is to offer a wide spectrum of mobile communication and assembly technologies to respond to the requirements of all market segments. Because they are so affordable, BGA packages are very suitable for medium- to high-volume applications. The customer benefits from two factors. Firstly, BGA modules are cheaper to process so unit prices are lower. Secondly, the material costs of the product are reduced as no board-to-board connectors are required. BGA modules are fitted by means of a grid of solder balls on the underside of the package. BGA technology is easy to process and permits a high number of inputs and outputs on a relatively small footprint. Thanks to the good surface connection the BGA form factor also offers excellent heat dissipation from the product. The HE863 measures a compact 31.4 x 41.4 x 2.9 mm. The solder balls are spaced further apart than with most other BGA systems (2/2.5mm compared with 0.8/0.5mm), making for easier assembly. All models in the series have the same footprint for maximum compatibility.

Global HSPA functionality

The HE863 supports quad-band GSM, GPRS/EDGE multislot class 33, 3GPP stack Release 6 and dual-band HSPA with 5.76 Mbps (uplink) and 7.2 Mbps (downlink). There are three pin-compatible variations of HSPA (900/2100, 850/1900 and 850/2100) to enable global use. Telit supplies the module with an optional embedded GPS/A-GPS receiver.

All models in the HE series, which will be launched in stages between now and mid-2011, have very low power consumption. The modules can be used in a temperature range of -30°C to +85°C.

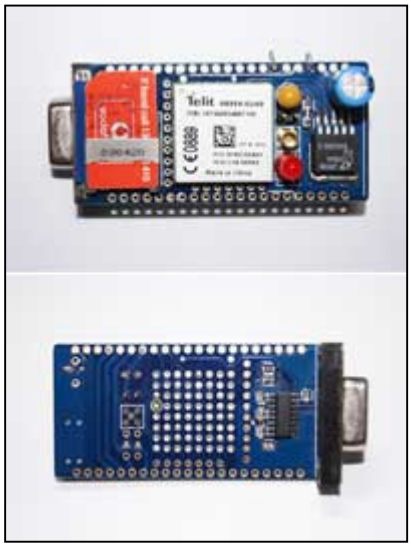
As with all Telit modules, the HE series features Premium FOTA (Firmware Over The Air) Management for fast, secure, reliable and cost-effective over-the-air firmware updates. Telit also supports customers by developing custom products and features such as special AT commands.

For more details about Telit's new HE863 module, please send us an email at sales@glyn.com.au

New Telit GE865 GSM/GPRS Module Breakout Board Now Available from GLYN

A low cost, easy way to connect your Arduino, Propeller or other Microcontroller to the Internet via the 2G GSM/GPRS phone network

Ever wanted to be able to send or receive text messages from your Arduino, to send emails, or retrieve information from the web, all without a wired connection? Now the new Telit GE865 breakout board WT25_GE865, available through GLYN High-Tech Distribution makes it easier to get your microcontroller connected to the Internet over 2G GSM/GPRS network. The WT25_GE865 ultra thin PCB lets you connect Telit's lowest cost 2G GSM/GPRS module, the GE865, normally used only by high volume surface mount assemblers.



Using a fine tip soldering iron, the solder balls of the GE865 can be soldered from behind the thin printed circuit board, as easily as industry standard DIP parts. The ball pitch on the GE865 is 2.4mm, just slightly less than 0.1" DIP or SIL components.

Features:

- Optional RS232 using MAX3232 for easy setup/debug using USB-to-Serial dongle
- Linear LDO regulator on board, adjustable voltage set point and load point sense wire
- Status LED blinks at different rates to indicate connection status
- 10 pin connection to P0-7 and Power on prototype board
- Several Telit GPIO broken out on top 0.1" header row
- MMCX antenna connector, MMCX to SMA cables readily available

For more details about GLYN's WT25_GE865 PCB, sourcing of components used in this board or Telit GE865 module documentation, please send us an email at sales@glyn.com.au

Telit Launches World's First Online Technical Support Forum for M2M

Telit expanded its support service and launched the world's first open communication platform for M2M topics, the Telit Technical Support Forum. The forum was developed for Telit customers but also grants access to the entire M2M community. System integrators, developers and partner companies can exchange opinions and ideas amongst themselves and receive valuable assistance, at any time, for their daily work from the Telit Technical Support Team around the world. The support team consists of employees from Telit's four research and development centres in Trieste (Italy), Sardinia (Italy), Sophia Antipolis (France) and Seoul (Korea).

The registration process is straightforward: Telit customers register for the forum on the company website using a contact form. They receive then their log-in data with full access rights within 48 hours. Full access is exclusively granted to customers including reading and writing. But also non-customers can view the forum after registration to find out if their topic has already been discussed. Telit has chosen this open approach for its forum concept to guarantee access to external visitors, too. Following registration, all users can read the latest discussions to learn more about M2M.

For more details about Telit's Technical Support Forum, check out the Registration webpage or send us an email at sales@glyn.com.au

For more information about GLYN Ltd products, please visit our website at www.glyn.com.au

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