

News Highlights – December 2006:

[MAXWELL TECHNOLOGIES Receives Largest-Ever 3 Million Unit 'D Cell' Ultracapacitor Order from European Wind Energy System Manufacturer](#)
[FTDI Announces Vinculum VDRIVE1 Module for USB Host Controller Designs](#)
[JENNIC Launches ZigBee Large Network Evaluation Product](#)

MAXWELL TECHNOLOGIES Receives Largest-Ever 3 Million Unit 'D Cell' Ultracapacitor Order from European Wind Energy System Manufacturer

Ultracapacitors Provide Reliable, Low-Maintenance, Backup Power for Wind Turbine Blade Pitch Systems

Maxwell Technologies Inc., available from [GLYN High-Tech Distribution](#), announced this month that a leading European producer of wind energy systems has placed a purchase order for 3 million BOOSTCAP® BCAP0350 E "D cell" ultracapacitors to provide backup power for wind turbine blade pitch systems.

Maxwell Technologies noted that the order, which is expected to be drawn down over two years, is for double the quantity of the company's previous largest D cell order, a 1.5 million-cell order for a wind energy application in February 2006.



MC product family

Custom modules

C and D cell family

The ultracapacitors are used for backup energy storage and power delivery in wind turbines ranging in output up to 2.5 MW. Each of the

turbines' three blades has an independent braking and pitch adjustment mechanism incorporating a bank of from 200 to 700 BOOSTCAP cells for backup power to ensure continuous operation in the event of a power failure.

"Strong global demand for wind energy systems is driving increased demand for ultracapacitors, and we are pleased that one of the world's largest and most innovative wind turbine producers has selected our BOOSTCAP products to enhance the performance and reliability of their systems," according to Maxwell.

Industry sources reported that approximately 11,400 MW of new wind energy generation capacity was installed in 2005, an increase of more than 40 percent from 2004. The worldwide installed base now stands at approximately 60,000 MW, and industry sources estimate the value of the wind energy market is expected to exceed \$130 billion over the next five years. Maxwell noted that MW class installations are expected to account for an increasing share of new capacity, and said that ultracapacitors' high reliability, robustness and long operating lifetime have now been proven in daily operation over the past three years in wind farms around the world.

Maxwell is a leading developer and manufacturer of innovative, cost-effective energy storage and power delivery solutions. Its BOOSTCAP® ultracapacitor cells and multi-cell modules and POWERCACHE® backup power systems provide safe and reliable power solutions for applications in consumer and industrial electronics, transportation and telecommunications. For more information, please visit www.maxwell.com.



FTDI Announces Vinculum VDRIVE1 Module for USB Host Controller Designs

FTDI, available through [Glyn High-Tech Distribution](#), announces the release of the VDRIVE1 evaluation module for its Vinculum family of embedded USB Host Controller devices.

The VDRIVE1 evaluation module provides an easy solution for adding a USB Flash disk interface to an existing product. Only four signal lines plus 5V supply and ground are required



to be connected to it. Using the Vinculum VDIF firmware the VNC1L-1A's I/O interface can be selected between the serial UART or SPI using the on-board jumper pins. VDRIVE1 is designed for evaluation and development of VNC1L-1A applications. With its attractive quantity discount structure, VDRIVE1 module is also suitable for incorporation into finished product designs.

The VDRIVE1 is ideal for commercial products such as domestic goods, set top box, etc. as well as industrial products such as data loggers, software upgradeable products, etc.

Key Features of VDRIVE1 Module:

- Uses FTDI's VNC1L-1A embedded USB host controller IC
- USB 'A' type socket to connect USB Flash disk
- Only four signals to connect, excluding power and ground
- Jumper selectable UART or SPI interfaces
- Single 5V supply input
- Power indicator and USB traffic indicator LEDs
- Uses Vinculum VDIF firmware and command set
- Program or update firmware via USB Flash disk or via UART or SPI interface
- VNC1L-1A firmware programming control pins PROG# and RESET# brought out onto jumper interface
- VDIP1 is a Pb-free, RoHS complaint development module
- Schematics, and firmware files available for download from the [Vinculum website](#)

The Vinculum VNC1L-1A is the first of FTDI's Vinculum family of Embedded SoC USB host controller integrated circuit devices. Not only is it able to handle the USB Host Interface, and data transfer functions but owing to the inbuilt MCU and embedded Flash memory, Vinculum can encapsulate the USB device classes as well. When interfacing to mass storage devices such as USB Flash drives, Vinculum also transparently handles the FAT file structure communicating via UART, SPI or parallel FIFO interfaces via a simple to implement command set. Vinculum provides a new cost effective solution for providing USB Host capability into products that previously did not have the hardware resources available. The VNC1L-1A is available in Pb-free (RoHS compliant) compact 48-Lead LQFP package.



JENNIC Launches ZigBee Large Network Evaluation Product

New 100-node ZigBee network evaluation product is the first commercially available, enabling evaluation and deployment of large-scale real-world applications

Jennic, available from [GLYN High-Tech Distribution](#), has announced the commercial launch of the first large ZigBee network evaluation product. It allows customers to rapidly evaluate and deploy wireless sensor networks of 100 nodes or more in real-world industrial, office, and home environments. By combining wireless sensor nodes, software and network monitoring tools the evaluation product is ready to use out of the box.



The wireless sensor nodes provide a building monitoring application with the provision of temperature, humidity and light sensors, coupled with switches and lights. The nodes can be used as endpoints, routers, coordinators and gateways with a mix of standard and high-power modules that can be either mains AC or battery powered. Each node also provides a RS232 serial port for configuration and monitoring. The nodes are preconfigured with a building monitoring application that runs on Jennic's standard ZigBee network stack. Nodes can be modified with Jennic's

Integrated Developer Environment allowing users to migrate towards their own application.

Following on from a phase of evaluation and prototyping ZigBee networks, the worldwide market is moving towards many companies undertaking trial networks in a variety of environments. The ability to deploy systems with 100 or more nodes using Jennic's wireless microcontrollers with a standard product enables development effort to be focused on the customer applications rather than the underlying wireless technology.

"Having provided ZigBee evaluation kits through 2006 we are now seeing many customers wanting to evaluate large-scale deployments of wireless sensor networks. The key features customers require are stable, robust, wireless communication in a variety of challenging environments, particularly commercial buildings, industrial environments and co-existence with Wi-Fi networks. A year ago Jennic addressed the market need for low-cost, easy development and we now complement this by simplifying large-scale deployments with mature, stable hardware and software," according to Jennic.



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

To **unsubscribe** to this newsletter, click [here](#).

GLYN Ltd (Australia and New Zealand) is a high-tech solutions provider and the exclusive distributor for a select range of semiconductors and electronic component manufacturers from Japan, Europe, USA and Taiwan. We are the sister company of [GLYN GmbH](#) (Germany) which has sales offices throughout Central Europe, Scandinavia and the UK.

GLYN represents some of the major brands in the industry such as Mitsubishi Electric, Fujitsu, Mitsubishi Materials, Micronas, Telit, Jennic, Micro Linear, Maxwell, Fastrax, Cyan Technology, FTDI, Bluegiga, Yitran, Sierra Monolithics,

Isahaya Semiconductors, AUO, Univision OLED and EDT LCD displays. Through our extensive network of suppliers we can also source those hard to find or obsolete items from a range of the world's premier semiconductor suppliers including Renesas, Toshiba, NEC, NEC-Tokin, Sony, Seiko Instruments, Yamaichi, Suyin, ICSI, Wavecom, Infineon, and Displaytech.