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ZigBee Wireless Solutions Provider JENNIC Appoints GLYN as Distributor for Australia, New Zealand



[Glyn Ltd](#) has been appointed as distributor of leading ZigBee wireless solutions provider [Jennic](#) for Australia and New Zealand.

UK-based Jennic supplies highly integrated silicon chips and software to designers and manufacturers of equipment for home automation, commercial building automation, and industrial process monitoring and control markets. Jennic's mission is to help customers realise the benefits of low cost, low power wireless connectivity in new and revolutionary applications. Jennic is unique in combining expertise in systems and software with world class RF and digital chip design, so their IC solutions for these wireless sensor networks lead the market in size, power, and cost.

Founded in 1996 to provide high-level semiconductor Intellectual Property and silicon design services for wired and wireless telecommunications, Jennic has an 8 year track record of successful silicon chip development, and continues to supply physical layer framers, high speed connectivity, and access co-processor IP to help Tier 1 customers develop broadband communications products.

JN5121 is the first in a series of low power, low cost IEEE 802.15.4 compliant wireless microcontrollers designed and manufactured by Jennic. Combining an on chip 32-bit RISC core, a fully compliant 2.4GHz IEEE802.15.4 transceiver, 64kB of ROM and 96kB of RAM, JN5121 provides a versatile low cost solution for wireless sensor networking applications. The high level of integration helps to reduce the overall system cost. In particular, the ROM enables integration of point-to-point and mesh network stack protocols, and the RAM allows support of router and controller functions without the need for additional external memory. JN5121 uses hardware MAC and highly secure AES encryption accelerators for low power and minimum processor overhead. Integrated sleep oscillator and power saving facilities are provided, giving low system power consumption. The device also incorporates a wide range of digital and analogue peripherals for the user to connect to their application.

Jennic also designs and manufactures ZigBee/IEEE 802.15.4 wireless modules. The JN5121-Z01-M00 is a surface mounted module that enables users to implement ZigBee compliant systems with minimum time to market and at the lowest cost. These modules remove the need for expensive and lengthy development of custom RF board designs and test suites. The modules use Jennic's JN5121 wireless microcontroller to provide a comprehensive solution, including all RF components. All that is required to develop and manufacture wireless control or sensing products is to connect a power supply and peripherals such as switches, actuators, sensors, considerably simplifying product development. The JN5121-Z01-M00 has an integrated antenna and can also be provided pre-programmed with customer-specific software.

Another ZigBee module produced by Jennic is JN5121-Z01-M01 which is similar to JN5121-Z01-M00, except that it has an SMA antenna connector. JN5121-Z01-M01 can also be provided pre-programmed with customer-specific software.

Jennic also offers a wide range of ZigBee/IEEE 802.15.4 Evaluation Kits including a Controller Expansion kit, Network Stack Kit, Sensor Expansion Kit, Software Developer Kit, and Starter

Kit. Extensive technical support is made available at Jennic's website including online documentations, FAQ, application notes, reference designs, schematics, bulletin board, and development tools software downloads.



FTDI Announces Vinculum Embedded USB Host Controller

FTDI, available through [Glyn High-Tech Distribution](#), announces the release of the [Vinculum](#) family of embedded USB Host Controller devices. The Vinculum USB Host Controller ICs not only handle the USB Host Interface and data transfer functions, but owing to the inbuilt 8/32-bit MCU and embedded Flash memory, Vinculum encapsulates 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
BINDING USB TECHNOLOGIES

The initial product member of the family is the **VNC1L** device which features two USB Ports and can be individually configured by firmware as Host or Slave ports.

Key VNC1L features include an 8/32 bit V-MCU core; dual DMA controllers for hardware acceleration; 64k Embedded Flash Program Memory; 4k internal Data SRAM; 2 x USB 2.0 Slow/Full speed Host/Slave Ports; UART, SPI and Parallel FIFO interfaces; PS2 legacy Keyboard and Mouse Interfaces; up to 28 GPIO pins depending on configuration; 3.3V operation with 5V safe inputs; low power operation (25mA running/2mA standby); inbuilt FTDI firmware easily updated in the field; LQFP-48 RoHS compliant package; and Multi-processor configuration capable.



FTDI has also released a suite of Vinculum evaluation kits for various applications to assist customers in their product development. The **VDRIVE2** is possibly the easiest solution for adding a USB Flash Drive interface to existing products. Only four signal lines plus 5V/GND require to be connected. Using the VDIF firmware from FTDI, the interface can be selected between UART or SPI modes using the on-board jumpers. VDRIVE2 is ideal for use in commercial products such as domestic goods, set top box, etc. as well as industrial products such as data loggers, software upgradeable products, etc.

The **VDIP1** module is an MCU to USB Host Controller development module for the VNC1L device. VDIP1 is supplied on a PCB designed to fit a 24-pin DIP socket and provides access to all UART, SPI and FIFO interface pins of the VNC1L device. Ideal for rapid prototyping and development of VNC1L designs, an attractive quantity discount structure also makes this module suitable for incorporation into low/medium volume finished product designs.

VMUSIC2 is a product that not only lets you add USB Flash Drive interfacing to your product but allows you to play back MP3 and other popular digital music formats direct from a USB Flash Drive. Extensions to the VDIF command set allow you to play a selected file as well as control the volume, balance, etc of the sound channel and monitor the status of the file being played. VMUSIC2 is ideal for adding MP3 playback from USB Flash Drive capability to home entertainment and in-car audio systems, as well as other appliances requiring audio playback capability from USB Flash Disks.

VF2F is a reference design for a VNC1L based stand-alone application. VF2F illustrates how to construct a file back up device for a Digital Camera with a USB Mass Storage Class interface. At the push of a button, all the picture files on the camera are copied to a unique folder of a USB Flash drive so that the digital camera memory can be re-used to take further pictures. This is an ideal accessory for digital camera users who wish to backup their photos on the road without having to carry a notebook PC, or for people who want to share or swap their photos without requiring a card reader. VF2F is powered by two AAA size alkaline batteries.



CYAN TECHNOLOGY Offers Extensive Suite of Solutions with its eCOG1k 16-bit Microcontroller

UK-based microcontroller vendor, [Cyan Technology](#) (available through [Glyn High-Tech Distribution](#)), has developed an extensive suite of turnkey solutions for a wide range of applications with its powerful eCOG1k 16-bit microcontroller.

The eCOG1k microcontroller is a low-power microcontroller based on a 16-bit Harvard architecture with a 24-bit linear code address space (32Mbyte) and 16-bit linear data address space (128Kbytes). Some of the features of the eCOG1k include speeds up to 25MHz at 3.3V, powerful arithmetic operations, barrel shifter, built-in emulator (eICE), low power operation, 64Kbytes Flash EPROM, 4Kbytes SRAM, and MMU.



The eCOG1k also incorporates a power-saving code cache, external host interface, external memory interface, fast vectored interrupts, and various interfaces such as dual UART/ USART, Smart Card Interface, SPI, I2C, infrared link support, and interfaces to 8/16/32-bit parts. Additional peripherals include a 4 channel 12-bit ADC, 5 multi-purpose timers, long interval timer, clock timer, PWM timers, temperature sensor, supply voltage sensor, power-on reset, 88 digital I/O pins, and 29 general purpose I/O pins. The eCOG1k is available in a 128-pin LQFP package.

eCOG1k reference designs are available for TCP/IP networking, Operating Systems, Multiple UARTs, Asset Tracking (GSM GPRS/GPS), Using a CMOS Camera and JPEG Compression, RF Networking, and Blackberry Mobile Device.

Comprehensive application notes available for the eCOG1k include various memory-related applications such as Interfacing to a Compact Flash Memory Card; FAT File System Support; Interfacing to an MMC or SD Card via SPI; Programming External Memory in CyanIDE; Using External Flash for Code; Using the Flash Information Block for Small EEPROM Replacement; Flash Memory Bootloader; Writing Data to Flash Memory; Using External Flash Memory; and Using Internal Flash Memory.

Other eCOG1k application notes relate to usage of its internal peripherals such as Temperature Measurement, and Differential ADC Measurement; Using the SCI Function in the DUSART; Using the I2C Function in the DUSART; Using Multiple Serial Ports; Implementing 16-bit SPI with the User Serial Port; Implementing a UART with the User Serial Port; Implementing Serial Ports with Timers; Using the UART Function in the DUSART; Low Power Operations; and Configuration Guidelines;

Additional eCOG1k application notes are available for various applications such as TCP/IP Stack; Installing and Using uCOS-II RTOS; PicOS applications such as Data Logger, Multi-Tasking, MicrelNet RF Firmware Stack Implementation; Driving a 240x64 LCD; Software LCD Driver; Using a CMOS Camera; JPEG Image Compression and Decompression; CVSD Compression; Audio Output from Sound Files; A Simple VoIP Demonstration; Common Bus Serial Communications (RS-485); Low Power Serial Communications; Using an SPI DAC; and Simple Command Line Interface.

Cyan's own integrated development environment CyanIDE which is available free of charge includes a full ANSI C-compiler, Editor, Project File Manager, Simulator, Debugger and In-system Programmer. CyanIDE supports the Cyan's entire range of current and future microcontrollers. The software makes chip integration into customers' products simple, quick, reliable and hence less expensive while dramatically reducing development time.



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