

## News Highlights – May 2007:

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### GLYN Launches Jennic JN5139 ZigBee Evaluation Kit Promotion

GLYN in conjunction with Jennic is launching a promotional campaign for the new JN5139 ZigBee Evaluation Kit, now available for **only US\$499 for the first 50 customers!** That's over 60% discount from the previous RRP!

This promotional pricing is designed to lower the barrier to entry in the ZigBee/IEEE 802.15.4 market and to make it more cost effective for OEMs to equip their entire engineering teams with tools for wireless product development. This move was done in response to numerous feedbacks from our OEM customer base wishing to provide their entire engineering teams with Jennic development hardware to reduce their time to market. This pricing also places the Jennic kits within the range of smaller companies wishing to enter the ZigBee/IEEE 802.15.4 market as OEMs or third party developers.



The JN5139-EK010 ZigBee Evaluation Kit contains the following items:

- 1 Controller Board with large LCD display, plug-in ZigBee module with SMA connector
  - 2 Sensor Boards with plug-in ZigBee module with SMA connector (pre-configured as router)
  - 2 Sensor Boards with plug-in ZigBee module with integrated ceramic antenna (pre-configured as end device)
  - 2 plug-in high-power ZigBee modules with SMA connector
  - 3 SMA-connector antennas
  - 2 USB-to-TTL Serial converter cables (FTDI)
- 1 pack of 10 AAA batteries for the boards
  - 1 CD-ROM containing software and user documentation
  - Daintree Networks Sensor Network Analyser software

The controller board and four sensor boards are delivered pre-programmed with a Home Sensor Demonstration application that emulates a building control and monitoring system, enabling a quick evaluation of the ZigBee wireless sensor network technology. Each sensor board remotely monitors the temperature, humidity and lighting levels with the data regularly transmitted to the controller board where it is displayed on the LCD. The plug-in ZigBee modules on each sensor board are also interchangeable and reprogrammable making it more flexible as a prototyping kit.

The application program on each plug-in ZigBee module can be modified and re-flashed using Code::Blocks IDE (Integrated Development Environment), Jennic's Flash Programmer software, and USB-to-TTL Serial converter cable. Code::Blocks is an open source, cross-platform IDE and Jennic's version is a full-featured IDE with project manager, source code editor, C compiler, linker, debugger, and user-defined tools. The evaluation kit is also provided with a Jennic-specific version of CygWin Linux emulator using Command Line Interface.

The Daintree Networks Sensor Network Analyzer (SNA) combines a powerful protocol analyzer with network visualization, measurements and diagnostics for IEEE 802.15.4™ and ZigBee™ applications. The analyzer provides automatic display of network formation, topology changes, and device state changes allowing rapid detection of incorrect network behavior and identification of device or network failures.

The controller board and the four sensor boards are also provided with a 40-pin expansion connector allowing direct access to the JN5139 wireless microcontroller pins, making prototyping for custom applications much easier.

For more information about Jennic products or to order a Jennic ZigBee Evaluation Kit, please send us an email at [sales@glyn.com.au](mailto:sales@glyn.com.au)



## Embedded Graphics Made Easy with Fujitsu LIME EVB from GLYN

### *FUJITSU LIME MB86276 and GLYN LIME EVB Starter Kit*



Using simple commands, the FUJITSU MB86276 LIME graphics controller, available through [GLYN High-Tech Distribution](#), is capable of displaying complex images on TFT screens, displaying and scaling video streams from a camera. High-quality text output is also easily handled, because every Windows font can be used with LIME.

PCs first started to make inroads into ordinary homes back in the eighties. It was not long after that the new technology allowed programmers to develop the first process controls and visualizations with the PC. The key to this was Basic, a programming language characterized by its extreme simplicity and ease of use.

The fact that this simplicity has not gone away is clearly demonstrated by GLYN-designed LIME EVB Starter Kit, in which the FUJITSU MB86276 (LIME) graphics controller is integrated. The kit is easy to integrate into existing applications, completely taking over the graphics control. Communication with the existing application via the 16-bit data bus can be in multiplexed or non-multiplexed mode. If neither of these is available, the communication can run via the IIC bus. At 400KBit/s, the speed of communication is adequate for simple visualizations.

The programmer is provided with an API, which is similar to the Open GL Standard. This user-friendly tool is quickly mastered. While the API is currently available for FUJITSU MCUs, GLYN has also prepared a wide variety of utilities for other MCUs, together with base-level initialization, using the C programming language.

The kit has a maximum 1280 x 768 resolution display capability. Various output modes are available (parallel, multiplexed, multiplexed BE mode). The LIME is capable of driving up to 2 WVGA displays in parallel mode. The Starter Kit includes 8MB SDRAM.

Integrated on the board is a Micronas VPX3226 that converts incoming video signals to the ITU656 signal, allowing up to 4 video inputs to be sequentially displayed. The LIME continuously processes this stream, and is able to scale it and patch it into the displayed image. The applications of the function are very far-reaching, including vehicle reversing cameras or industrial equipment surveillance.

Typical applications for GLYN LIME EVB:

#### **Automotive**

- In-dash navigation
- Infotainment systems
- Configurable instrument panel
- Heads up display

#### **Marine**

- Fish finder
- Navigation

#### **Other**

- Medical Instrumentation
- Industrial automation

Various TFT displays such as from Hitachi and Toshiba are recommended with the GLYN LIME EVB. For a copy of the LIME EVB brochure or more details, please send us an email at [sales@glyn.com.au](mailto:sales@glyn.com.au)



### **Univision Introduces World's Largest Passive Matrix Colour OLED**

Univision, available through [GLYN High-Tech Distribution](#), introduces the world's largest passive Matrix colour OLED available in mass production (part number UG-6028GDEBF01). The UG-6028GDEBF01 OLED display comes with 160 (RGB) x 128 pixels and has a maximum of 262,144 colours. An external MCU can interface with this display using selectable parallel or serial bus interface. The type of parallel bi-directional data bus interface is also selectable (80-series or 68-series).



The basic specifications for the UG-6028GDEBF01 OLED display are listed below.

#### **Display Specifications**

- Display Mode: Passive Matrix
- Display Colour: 262,144 Colours (Maximum)
- Drive Duty: 1/128 Duty

#### **Mechanical Specifications**

- Number of Pixels: 160 (RGB) x 128
- Panel Size: 39.90 x 34.00 x 1.80 (mm)
- Active Area: 33.575 x 26.864 (mm)
- Pixel Pitch: 0.07 x 0.21 (mm)
- Pixel Size: 0.045 x 0.194 (mm)

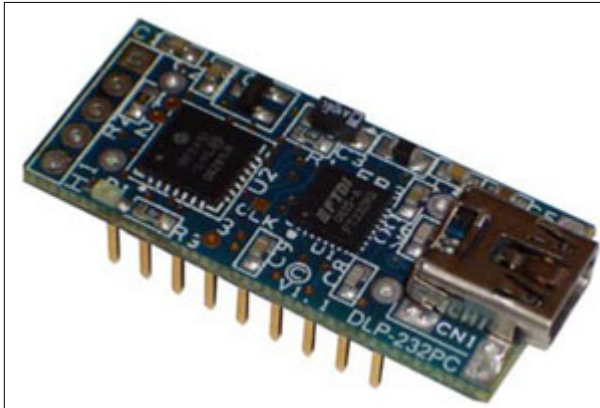
- Weight: 4.5 (g)

The UG-6028GDEBF01 OLED uses a Syncoam SEPS525 OLED display driver and controller (datasheet available on request). The SEPS525 instruction set includes a power save mode, reduced current driving mode, window mode, partial display (programmable panel display size), vertical scroll, and horizontal panning.

An Evaluation Kit for the UG-6028GDEBF01 OLED is also available from GLYN High-Tech Distribution. For more details about the UG-6028GDEBF01 OLED and Evaluation Kit, please send us an email at [sales@glyn.com.au](mailto:sales@glyn.com.au)



## FTDI Introduces the DLP-232PC Data Acquisition Module



FTDI, available through [GLYN High-Tech Distribution](#), announces the availability of the DLP-232PC Data Acquisition Module which is ideal for data acquisition, industrial/process control, and process monitoring applications.

The DLP-232PC is a low-cost, easy-to-use data acquisition module for measuring voltages, controlling and monitoring processes, and acquiring temperature data. Each of the 14 available channels can be configured for digital I/O, or temperature modes via single-byte commands. Eight of the 14 channels can

be configured to measure analogue voltages in the range of 0-5 volts. All operational power is taken from the host PC via the USB port.

The mode of each I/O is automatically changed with each command sent. For example, if an I/O is set to Digital Output – High and then the Digital Input Mode is selected, the I/O is first changed to Input Mode and then the high/low state is read and returned to the host.

The programming interface (ICSP) is available for custom firmware development.

### Features

- 14 Channels: Digital I/O, Temperature, 8 Configurable For Analog In (0-5 Volts)
- PIC18F2410 Microcontroller
- USB Port Powered
- USB 1.1 and 2.0 Compatible Interface
- Small Footprint: 1.375 x .6 Inch PCB; Standard 18 Pin 0.3-Inch DIP Interface
- Easy to Use with Single-Byte Commands - Can Utilize a Simple Terminal Emulator to Control All Functions

### Specifications

The DLP-232PC is a 5-volt system that derives its power from the host USB port. Each channel has the following capabilities:

- Digital Output: Set high, or clear to low. (The actual high/low voltage depends upon sink/source current.)
- Digital Input: Read the high/low state.
- Analog In: (Channels 1-8 only) Read and return the voltage on each I/O pin using a 10-bit A/D: 0-5 volt range.
- Temperature: Measure temperature using a digital temperature sensor (purchased separately) in the range of 67 to 257°F (-55 to 125°C).



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