Subject: Liquid Crystal Twist Newsletter From: "Kent Displays, Inc." <sales@kentdisplays.com> Date: Thu, 2 Oct 2008 11:41:45 -0400 To: "joe@grandideastudio.com" <joe@grandideastudio.com>



# **Quarterly Question**

**Q** - What is an electronic skin?

**A** - An electronic skin is a Reflex<sup>™</sup> display on the surface of a product permitting personalization of the device by the user.

Reflex™



Alter-eGo<sup>™</sup> electronic skins are based on the same technology that is the basis for all Kent Displays products. The attributes of "No power", sunlight readability, wide viewing angle remain and are now combined with thin, rugged, and lightweight on flat or curved surfaces. A wide range of colors are possible including hue variations of black, blue, green, cyan, red, magenta, yellow and white. As with all Kent Displays products high contrast and bistability are the hallmarks. For more information contact sales@kentdisplays.com .

If you have a question or suggestion regarding Kent Displays' products or technology please submit here. We will select a question from those submitted and

# Notes from the Editor

Welcome to Volume 4, issue 2 of Kent Displays, Inc. Quarterly Newsletter: *The Liquid Crystal Twist*. As the world leader in the research, development and manufacture of Reflex<sup>™</sup> display products, it is our hope to bring you interesting and useful information regarding Reflex<sup>™</sup> technology, products, distributors/representatives and customers each quarter.

# In the News

- New 132 x 64 Reflex<sup>™</sup> display module announced
- Google Radish features Kent Displays' Reflex<sup>™</sup> display

### 132 x 64 Reflex<sup>™</sup> display with embedded controller and serial interface is added to Kent Displays' list of standard products.

The addition of the 132 x 64 Reflex<sup>™</sup> display with embedded controller and serial interface to the list of standard products represents an innovative combination of a "No Power" Reflex<sup>™</sup> display with its inherently superior optical characteristics and a simple interface. The end result is a product that reduces display integration time and thus product time to market. It is one of the most compact and cost efficient bi-stable graphic displays available.



The display solution features a Chip-on-Flex (COF) driver IC with LCD controller that generates the unique ChLCD drive waveforms and a DC/DC charge pump. System integration requires only an external

microcontroller for sending commands to the LCD controller

publish it along with the answer in a future newsletter.

### Announcements

#### Hi Tech Fair

- October 12-17
- Shenzhen Convention & Exhibition Center Shenzhen China
- Booth # 3092

#### IMID/IMDC/Asia Display 2008

- October 15
- Dr. Asad Khan: "New Flexible Applications using Reflex<sup>™</sup> Display Technology."
- Kintex Seoul Korea

#### SID Vehicles and Photons 2008

- October 17
- Joel Domino: "Flexible Reflex™ Displays and Unique Applications in Automotive Environments."
- Dearborn Fairlane Center Dearborn, MI

#### Embedded Systems Conference, Boston

- October 27-30
- Hynes Convention Center Boston, MA
- Booth #713

# The International Display Research Conference (IDRC 2008)

- November 5
- Dr. Albert Green: "Energy Efficient Flexible Reflex™ Displays"
- Nithya Venkataraman: "Thin Flexible Photosensitive Cholesteric Displays"
- University of Central Florida Orlando, FL

and external capacitors for use by the built-in charge pump.

Available immediately, the Development Kit is \$199.00 and consists of a 132 x 64 display module with onboard controller and development platform module. The JTAG port can be used to program the Development Kit controller for other applications. All cables, AC adapter and battery pack are included. The 132 x 64 Reflex<sup>™</sup> module is \$12.60 each at 1,000 pieces and at 10K the cost is \$10.80. Both development kit and modules are available now.

# Google Goes Green with the Radish.

Aaron Spangler, an engineer in the Seattle office of Google, got to thinking that his company must be consuming reams and reams of paper everyday. As part of the "20% projects" program for Google engineers, which allows Google employees to spend 20% of their time working on innovative projects, Spangler decided to do something about the problem. With the help of a few of his coworkers the *Radish* was planted, nurtured and harvested.

The *Radish* is a portable solar-powered calendar device that resides outside conference rooms and features a Kent Displays 320 x 240 (QVGA) display. The "No Power" Reflex™ QVGA



display permitted Spangler and team to eliminate the battery, a major environmental disposal concern, from the *Radish* as the energy required to power the Radish is harvested by a photovoltaic cell charging a "super capacitor." The Radish has helped Google reduce the amount of paper consumption as well providing a very convenient and attractive signage for calendar posting outside conference rooms.

For more about the Radish using KDI's ReFlex technology see Spangler's video at:

http://www.youtube.com/watch?v=VyHaImmmkGs

Contact sales@kentdisplays.com to find out how Kent Displays' ReFlex<sup>™</sup> displays can help your products become "green."

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