

# Liquid Crystal Twist

## QUARTERLY NEWSLETTER

### Quarterly Question

Q- What is a liquid crystal writing tablet?

A- A liquid crystal writing tablet, like the e-Note from Kent Displays, allows the user to write on its surface and then electronically erase it with the push of a button. To write, a stylus or any object that will create appropriate pressure (e.g., a finger) can be used. The tablet quickly captures writing from the pressure input. The written image is preserved on the screen until the erase function is performed.

The primary use of liquid crystal writing tablets is an environmentally-friendly, versatile replacement for standalone paper memo and notepads. Lightweight and thin, they can also be integrated into a wide range of other products including:

- office/room entrance signs
- ID tags and labels
- books/binders/organizers
- refrigerator magnets
- toys and recreational products
- vehicle visors and dashboards
- electronics cases (e.g., laptop keyboard)
- large appliances (e.g., refrigerator door)

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 publish it along with the answer in a future newsletter.

### Notes from the Editor

Welcome to Volume 5, Issue 1 of Kent Displays, Inc. Quarterly Newsletter: The Liquid Crystal Twist. As the world leader in the research, development and manufacture of Reflex™ display technology, it is our hope to bring you interesting and useful information regarding technology advancements, new/upgraded products, featured applications, customer success stories and distributors/representatives.

### In the News

- First Roll-to-Roll Production Line in the World
- Capabilities Enhanced to Meet Custom Display Needs

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## First Roll-to-Roll Production Line in the World Commissioned in Kent, OH

In the futuristic movie *Minority Report*, John Anderton (played by Tom Cruise) utilizes display technology with visual and functional characteristics unavailable in today's world. Information appears to float in front of him, right before his eyes, and he can manipulate it with hand gestures and arm movements.

The displays featured in the movie don't actually exist except in the make believe world of the computer that simulated them for the movie. But will they exist in reality by 2054, the time in which the movie is set?

While no one knows the answer for sure, Kent Displays has

## Calendar

### [SPIE Photonics West](#)

January 24-29, 2009

San Jose Convention Center

San Jose, California, U.S.A.

#### **Presentation**

Erica Montbach, Development Manager

### [Flexible Electronics & Displays Conference](#)

February 2-5, 2009

Pointe Hilton Squaw Peak

Phoenix, Arizona, U.S.A.

#### **Presentations**

Business and Investment Summit

Monday, February 2

*Kent Displays Corporate Briefing*

Dr. Al Green, CEO

Technical Conference

Tuesday, February 3, 3:30 p.m.

Session 4: Future Display Products

*Segment 4.3: Roll-to-Roll, Flexible Displays...Are We There Yet?*

Dr. Al Green, CEO

### [Embedded Systems Conference](#)

March 30-April 3, 2009

San Jose Convention Center

San Jose, California, U.S.A.

#### **Exhibit**

Booth #1911

### [Asia Display 2009](#)

April 27-30, 2009

Taipei International Convention Center

Taipei, Taiwan

#### **Presentation**

Dr. Asad Khan, V.P. Technology

### [SID - Display Week 2009](#)

May 31-June 5, 2009

San Antonio Convention Center

San Antonio, Texas, U.S.A.

#### **Presentation**

Erica Montbach, Technology Development Manager

#### **Exhibit**

Booth #265

designed and commissioned a new roll-to-roll production line that represents a benchmark achievement in LCD manufacturing technology that could ultimately lead to the type of displays featured in the movie.



Even though we may need to wait for Minority Report-type displays, our new production line will enable myriad new and unique display applications that will change things right before your eyes – just as they do for John Anderton!

What if you could dynamically change the outside appearance of your cell phone to match your shirt, hat, purse – or mood? What if your credit card could dynamically generate a random account number every use to better protect your financial and personal information? What if you could write and draw on a surface without the need for power or paper, and erase the image at the touch of a button?

Our new manufacturing line will mass produce the display technology that will make it happen!

Built in the U.S.A. and installed in our Kent, Ohio, U.S.A. facility, the new production line has gone through extensive testing during the recently completed commissioning process to validate its design and operation. The production line produces flexible, no power LCDs (branded as Reflex) by converting a roll of plastic film to a finished display assembly that is thinner than a human hair. This continuous process is much faster (up to 1 display/sec), efficient (automation requires minimal human interaction) and environmentally-friendly (no waste water or chemicals) than typical batch processes that manufacture LCDs on large, separate sheets.

The mass production capabilities of our roll-to-roll line will significantly increase the supply of flexible, no power displays for the ever expanding list of new and unique applications including smart credit cards and electronic product skins, note pads, ID tags, and labels.

Ready to become part of the future? Contact us with your application idea today at [sales@kentdisplays.com](mailto:sales@kentdisplays.com).



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## Development/Manufacturing Capabilities Enhanced to Meet Custom Display Needs

Do you have a display module application with special requirements? Kent Displays can help. We have enhanced and improved our development and manufacturing capabilities to produce custom designs on both glass and flexible substrates based on your specific needs.

Have a project with special display requirements? Contact [sales@kentdisplays.com](mailto:sales@kentdisplays.com).

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