

# Ultra-Low Power, Paper-Like Displays

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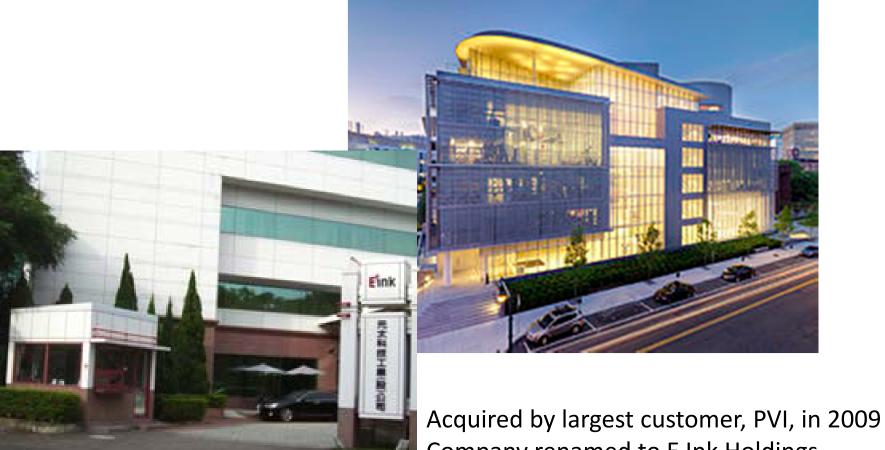


#### **Electronic Paper Displays**





#### Founded 1997, MIT Media Lab





Company renamed to E Ink Holdings

## About E Ink Holdings

#### **Corporate Snapshot**

- Established, June 1992
- Capital: NT\$10 Billion Dollars
- Employees: 6000+ worldwide
- Core Business: EPD & TFT LCD
- Chairman: Scott Liu
- Subsidiaries:
  - E Ink Corp (Cambridge, S.Hadley)
  - Sipix
  - E Ink Yangzhou
  - Hydis





## The YFY Group



#### **Paper Group**

- YFY Inc. \*
- YFY Packaging Inc.
- YFY Consumer Products Group
- Chung Hwa Pulp \*
- YFY Jupiter
- Yuen Foong Paper
- China Color Printing
- Shen's Art Printing\*
- Shin Foong Chemical
- Guangdong DingFeng Paper
- Guangdong Zhaoqing Forestry



#### Technology Group

- E Ink \*
- Transcend Optronics (Yangzhou)Co.,Ltd.
- Yeon Technology
- Arizon RFID
  - Yongfeng Precision Electronics
  - Foongtone Technology
  - BoardTek Electronics\*
  - Effion Enertech Co.,Ltd.



#### Financial Group

- SinoPac Holdings\*
- Bank SinoPac
- SinoPac Securities
- SinoPac Leasing
- SinoPac Venture Capital
- SinoPac Asset Management
- SinoPac Call Center
- SinoPac Securities Investment Trust



#### **Biotechnology Group**

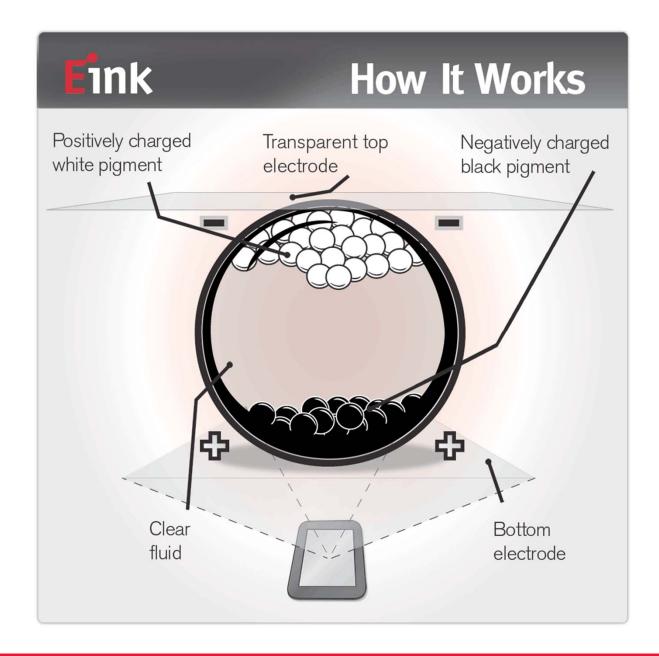
- TaiGen Biotechnology
- Green and Safe
- Ever Growing Agriculture Biotech
- YFY Biotech Management Co.
- Taiwan Global Biofund
- Taiwan Genome Sciences



#### **Educational Welfare**

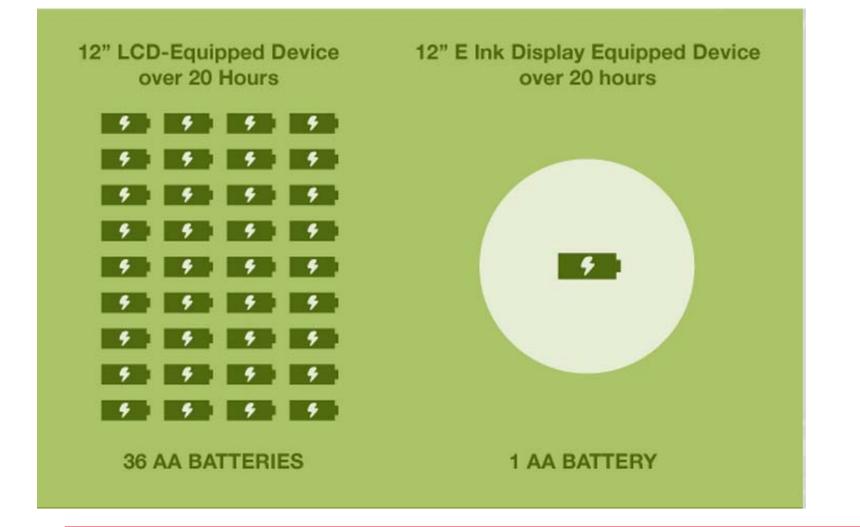
- Hsin-Yi Foundation
- Shang Shan Human Culture Foundation
- Yuan T. Lee Foundation
- Liver Disease Prevention & Treatment Research





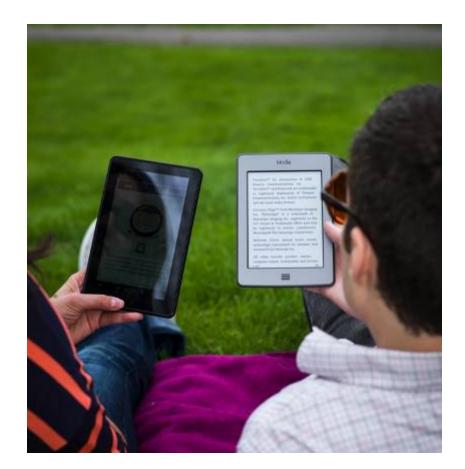


#### Low Power, Bi-Stable Display



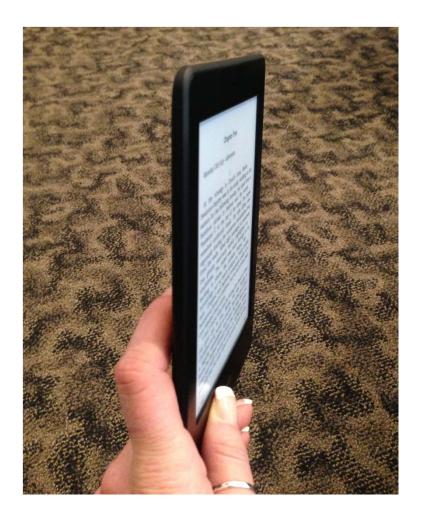


## Sunlight Readable





# Wide Viewing Angle





#### 2 Product Lines







#### eReader Products





#### **Non-eReader Products**



## Best Applications for E Ink

Power requirements have made a display unfeasible

- Novatel Wireless



- Form factor limitations have made the incorporation of a display impractical
  - Lexar

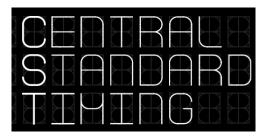




#### **CST-01**

Central Standard Timing wanted to "reimagine" the wrist watch, and create the world's thinnest watch







#### YotaPhone

Yota wanted to create a new way to access information, and save battery life, by integrating a low power E Ink display on the backside of a Smartphone





# **Electronic Shelf Labels**



Eink



ABCDID (0.4%)

LACK.

NCR.

- Scratch Resistance for Industrial **Applications**
- Black & White + 1 color for POP •



#### Large Area Signage



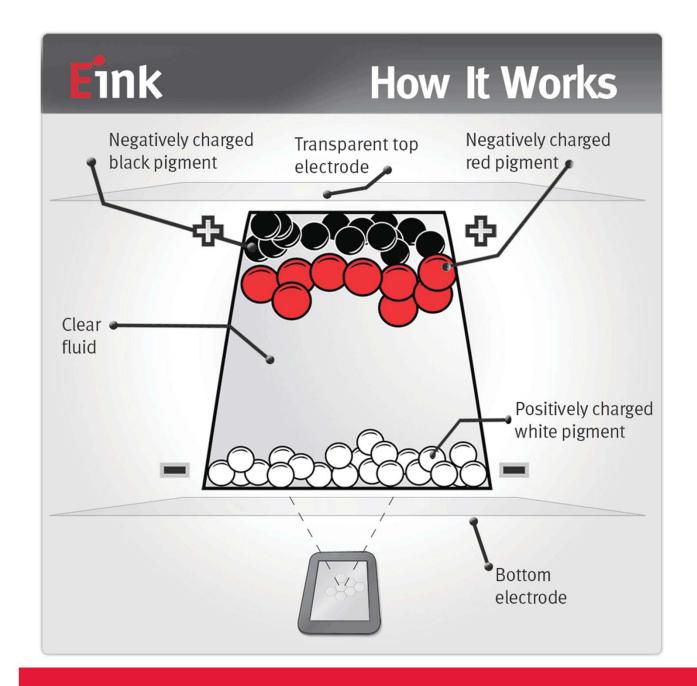


#### Spectra for ESL

- Three pigment system
- Black, white & red
- For ESL applications









#### Aurora for ESL



- Extended operation temperature range of -25 – 60 degrees C
- For ESL applications



## Mobius Display

- Flexible, plastic TFT
- Developed by Sony
- Transferred to E Ink for manufacturing
- First application Sony Paper Product
- 13.3"
- MP in 2013



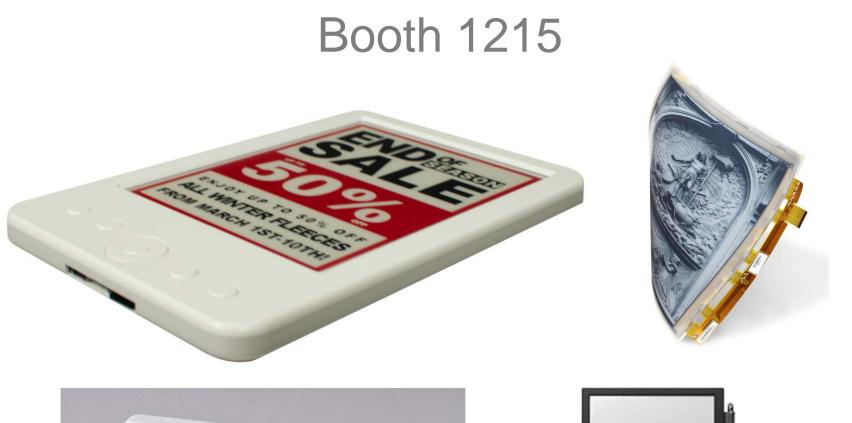


#### Sony Digital Paper Product



- A4 size device which can be a digital terminal for many different services. This is different than a standard eReader which just provides a reading function.
- Complete devices weighs 358g and can provide up to 3 weeks of use on a single charge.
- Education prototype will be developed with 3 different universities in time for the second semester in 2013
- Sony will commercialize this in 2013.











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# **Thank You**

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