

# E INK ON EVERY SMART SURFACE

## Electronic Paper

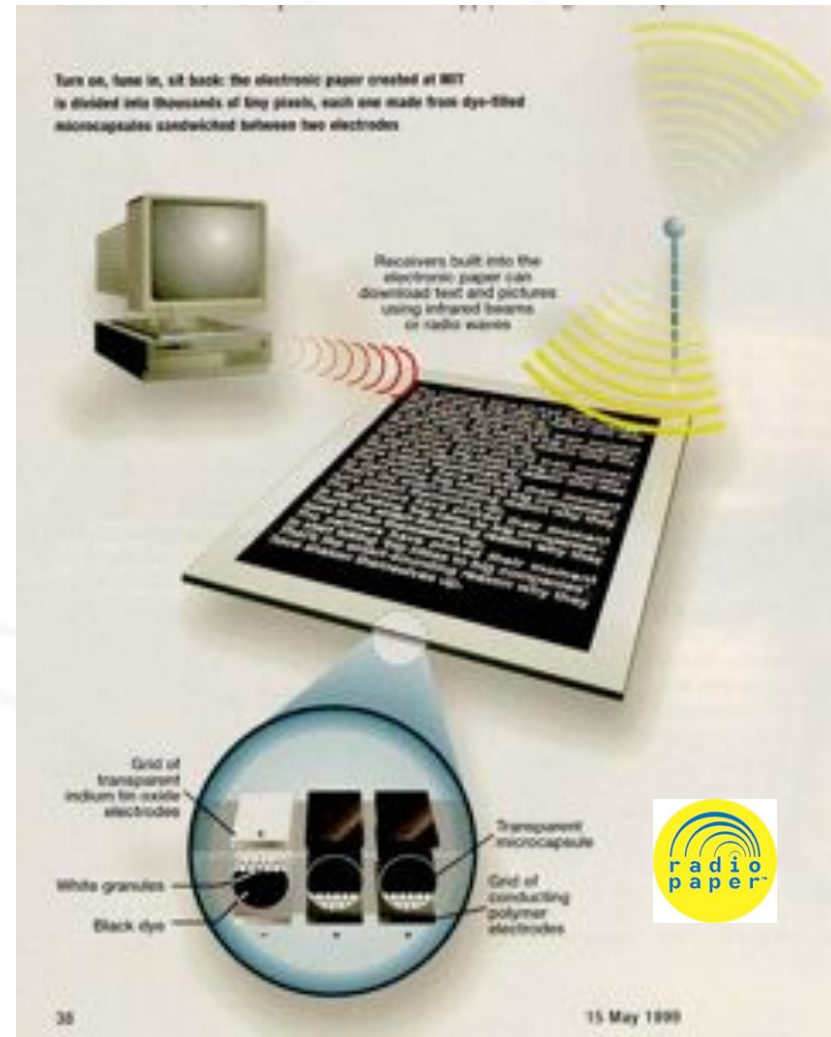
Sriram Peruvemba

*Chief Marketing Officer*

*E Ink Holdings Inc*



# The Radio Paper Inspiration



# 1997: The Opportunity

\$400 Billion

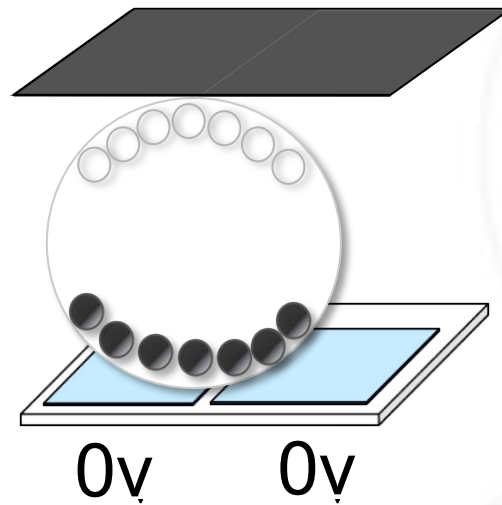


Electronic Paper

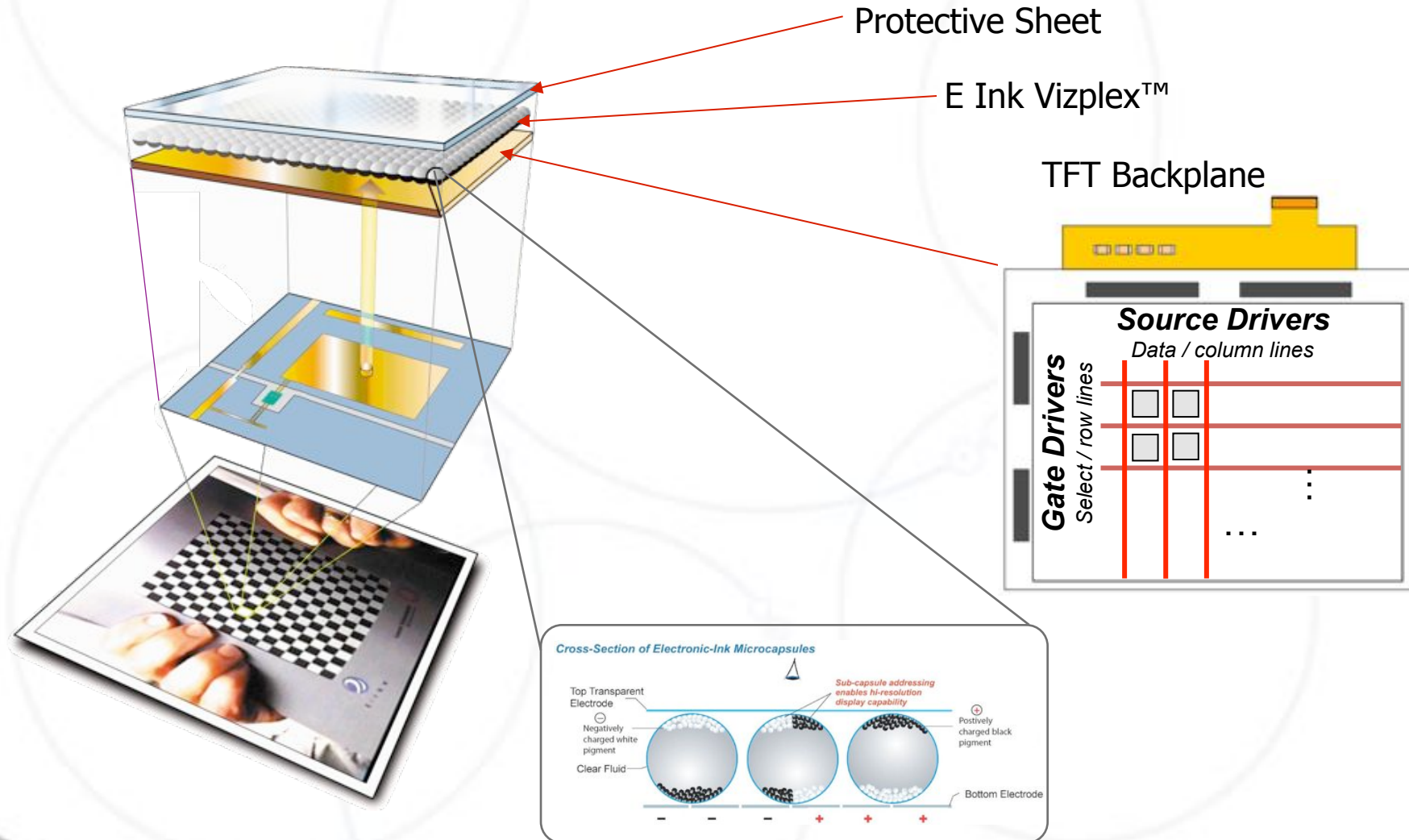


\$100 Billion

# Electrophoresis

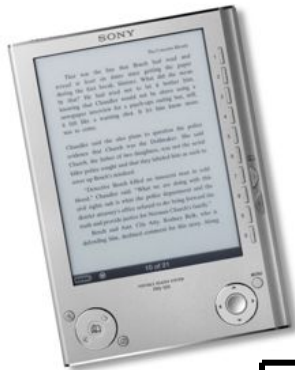


# Display Stack





# Active Matrix and Segmented



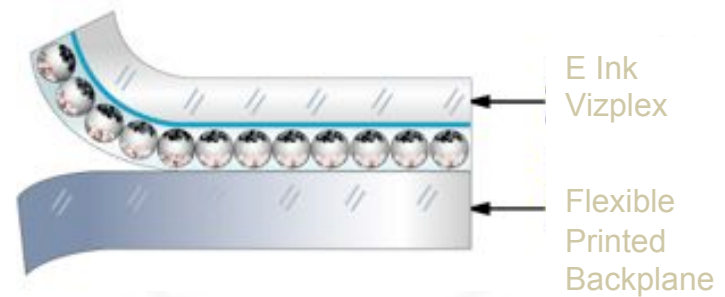
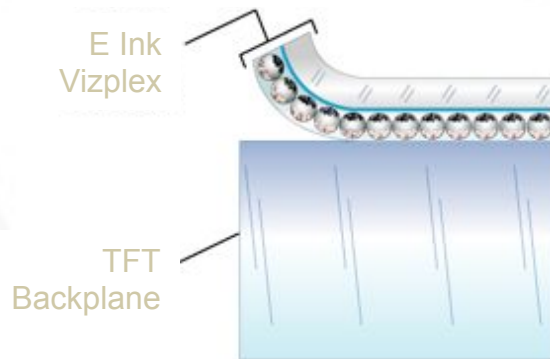
High Information Density  
Active Matrix Displays



E Ink SURF  
Segmented  
Ultra-thin  
Rugged  
Flexible



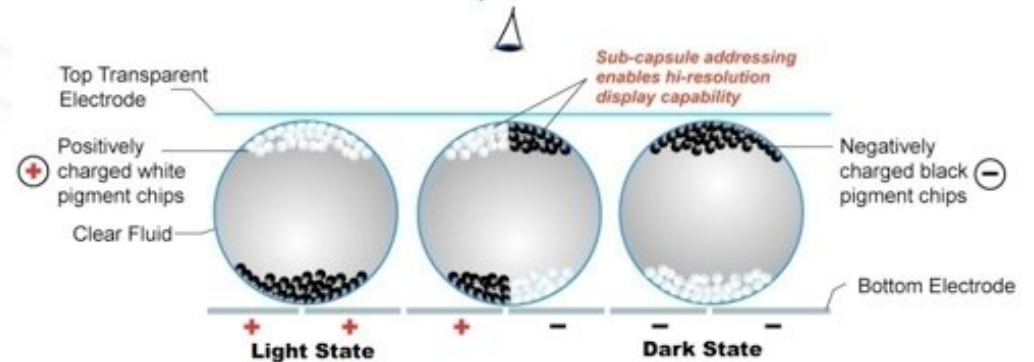
Low Information Density  
Segmented Displays



# Paper Like



*Cross-Section of Electronic-Ink Microcapsules*



*Note: For illustration purposes only - not drawn to scale. Copyright E Ink, 2003.*

**E·INK**

**– made from bits of ink and paper**

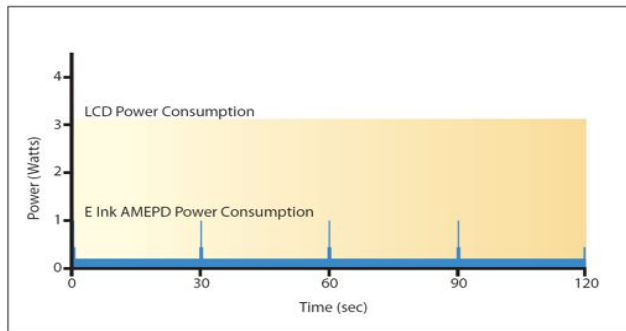
# Low Power

12" LCD for 20 hrs = 36



2.5 pounds

LCD vs E Ink Active Matrix Display System  
Power Consumption Comparison



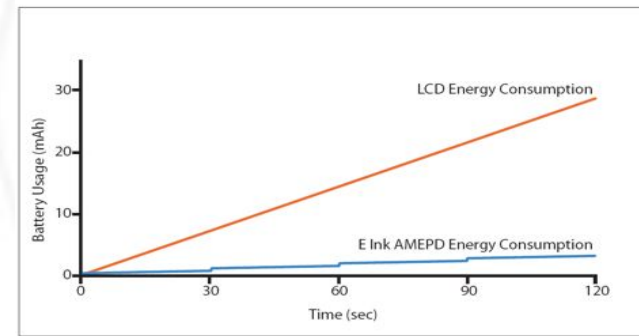
E Ink = 1



1 ounce!



LCD vs E Ink Active Matrix Display System  
Cumulative Current Consumption Comparison



Assuming single cell Li-ion battery at 3.6V

**– leave the power cord behind**



# Sunlight Readable



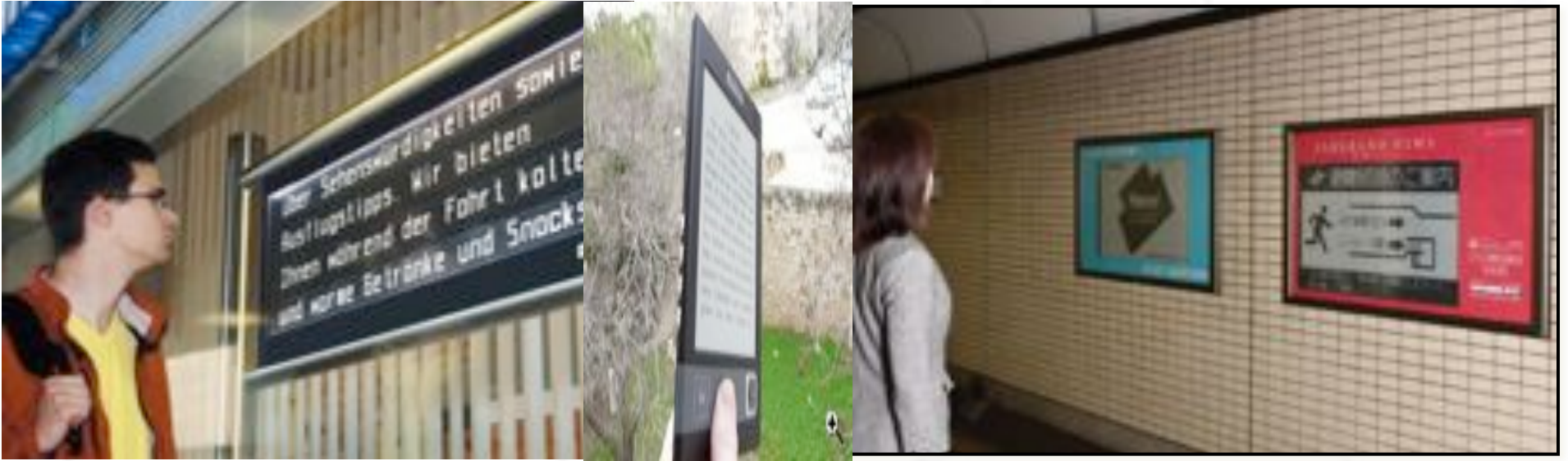
**– no shade required**

# Low EMI



– keeps a low (EMI) profile

# Wide Viewing Angle



**– see it fast from every angle**

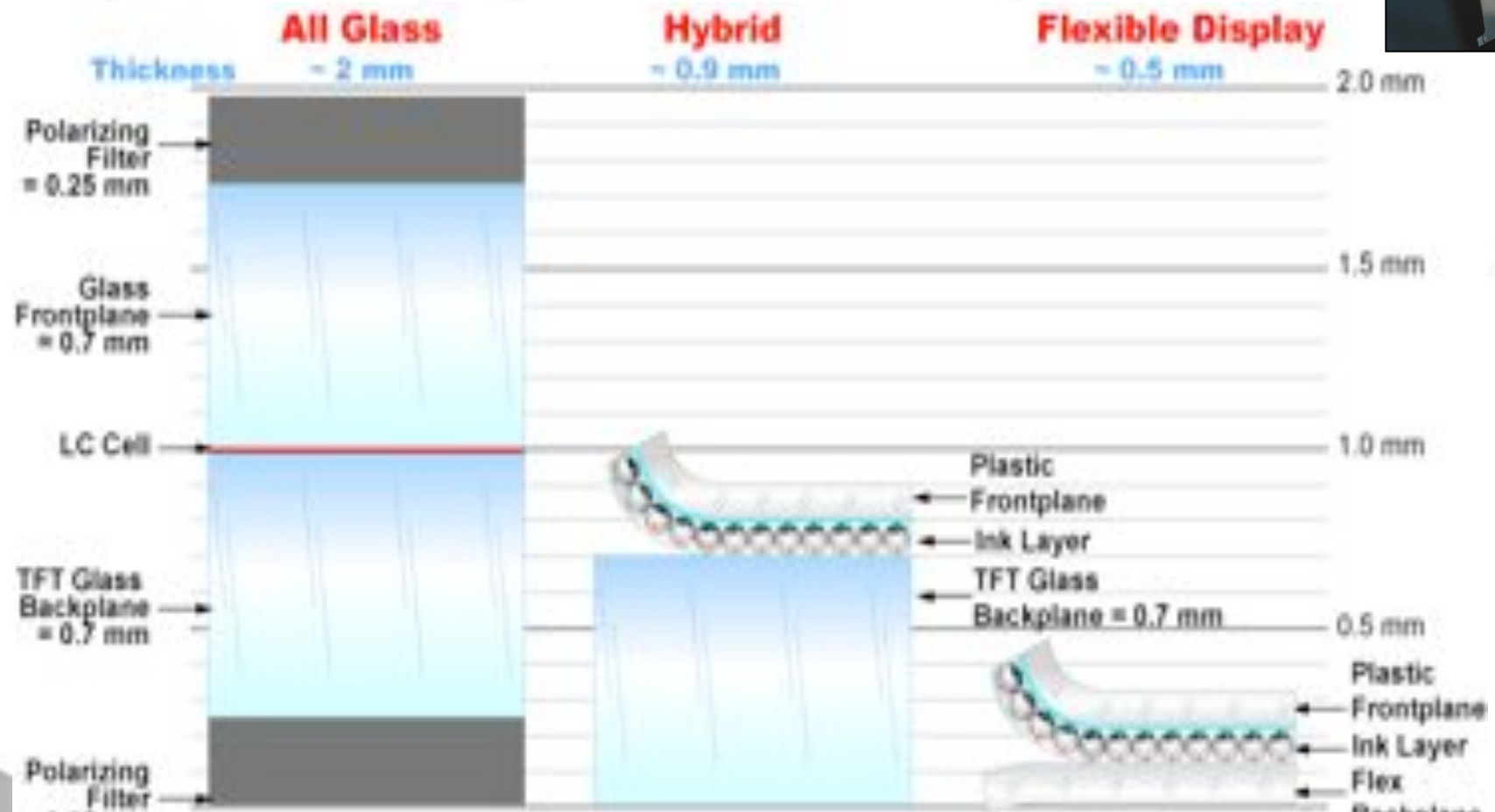
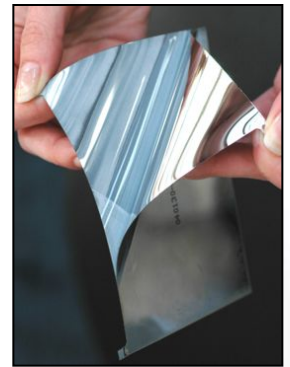
# Flexible/Rugged



**– bends so your product wont break**



# Thin & Light





# Millions of Flexible Displays in the Field

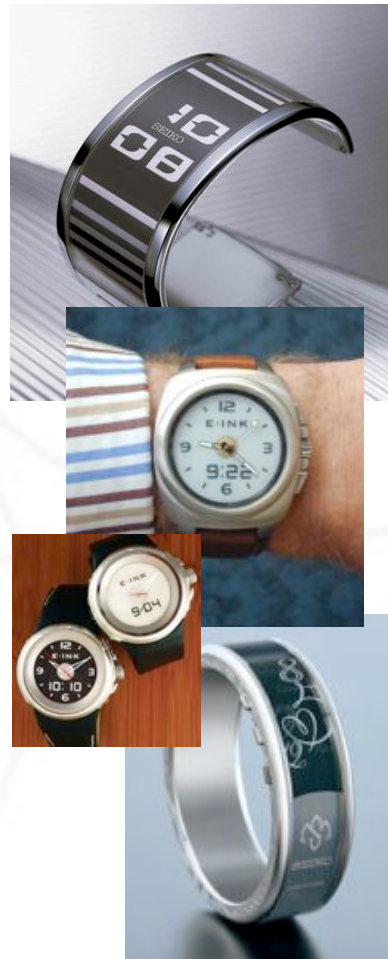
## Cellphones



## Indicators



## Watches



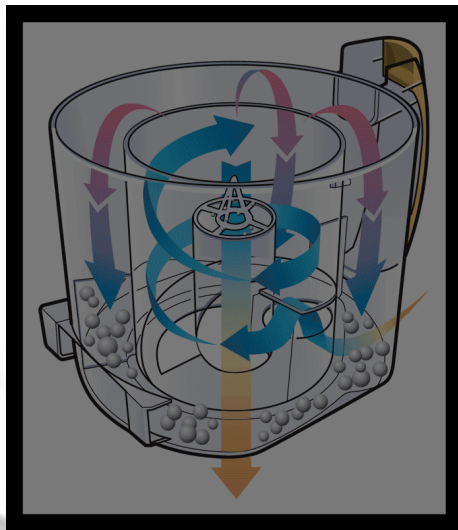
## Labels



## Signage

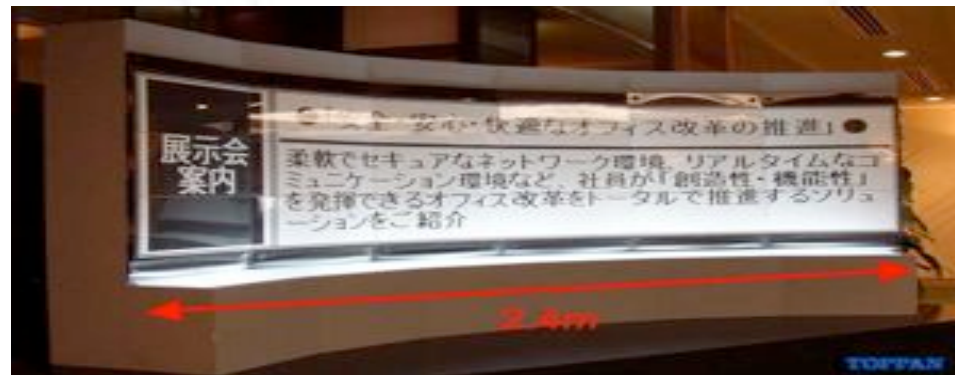


# Ink-In-Motion™ Segmented Displays





# Recently Launched



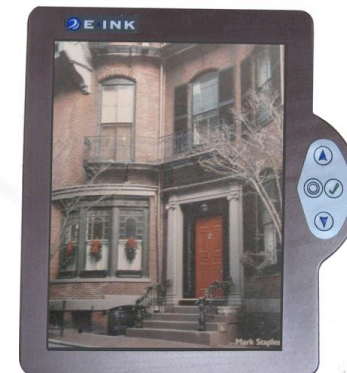
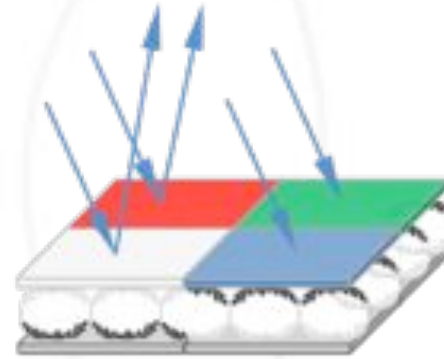
# eReaders – A Great Fit

- Hockey Stick
- E Ink Pearl™ raises the bar
- Tablet devices have helped educate the market



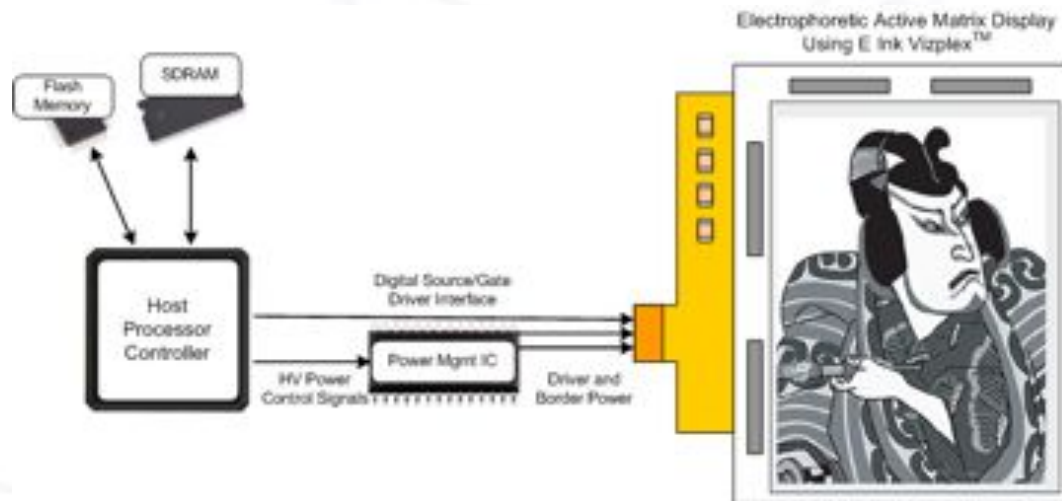
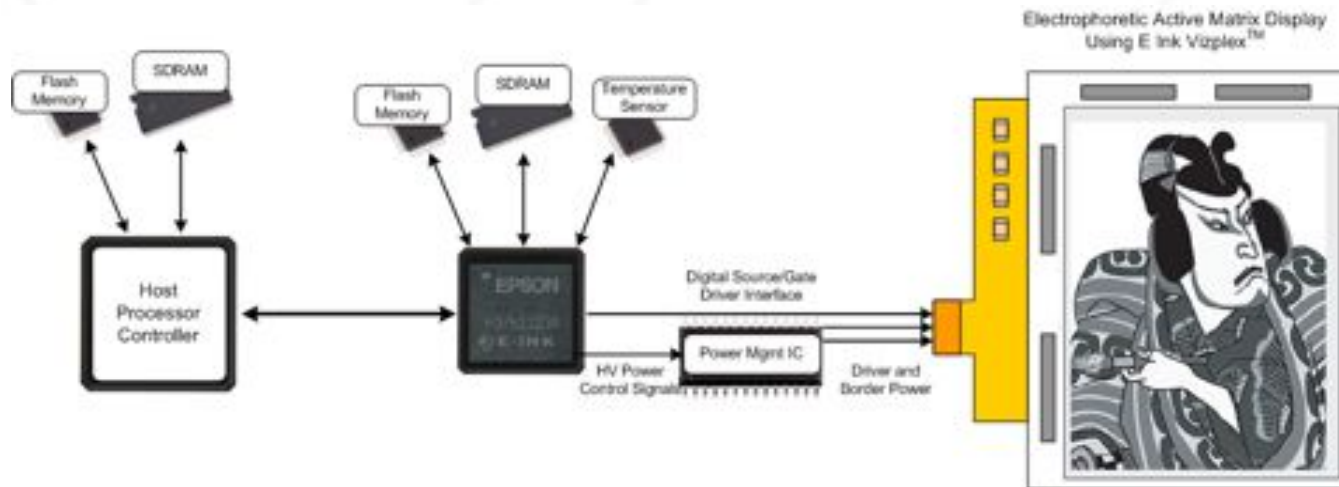
# E Ink Triton *Color* ePaper

- Outstanding outdoor performance
  - Looks great in direct sunlight
- Paper-like appearance
  - Best color ePaper experience
- Enables new markets
  - Beyond monochrome display markets
  - eTextbooks, eNewspaper, Signage
- Low and No Power
  - Power sipping like E Ink Pearl
- Proven performance
  - Two pigment system, with CFA overlay is proven and stable over life of product
  - Triton leverages core E Ink technology
- Processes and capacity built to meet rapid demand of new industry
  - Leverages E Ink manufacturing expertise and supply chain; millions of ebook displays shipped to date
  - Triton leverages ePaper and LCD manufacturing processes used in MP today

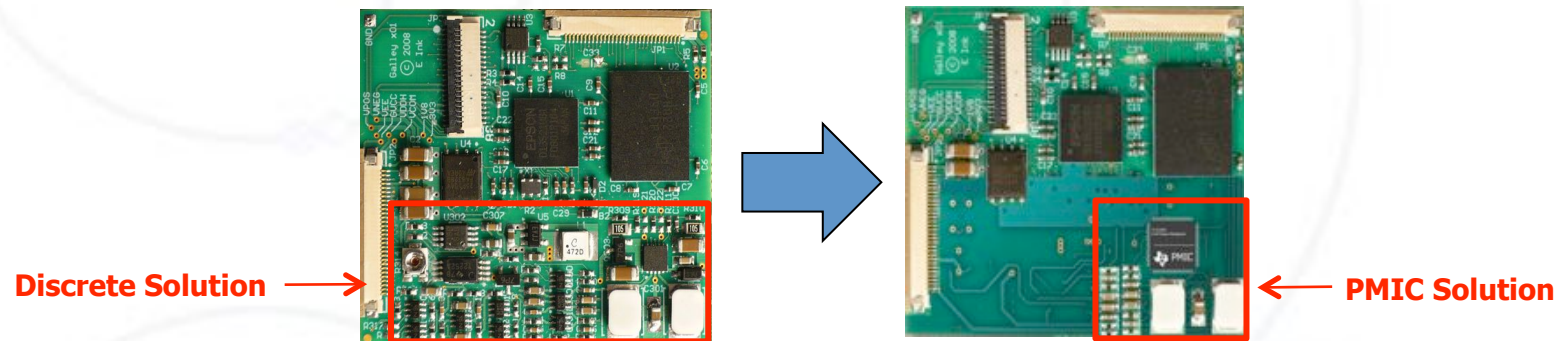




## Cost Saving : SOC

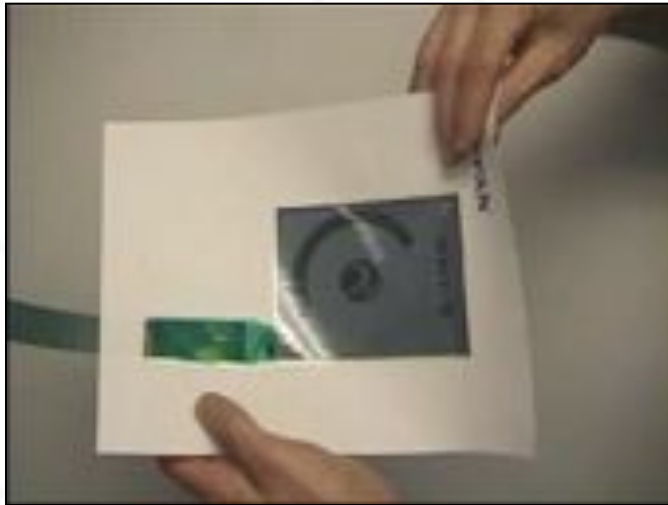


# Cost Saving: PMIC

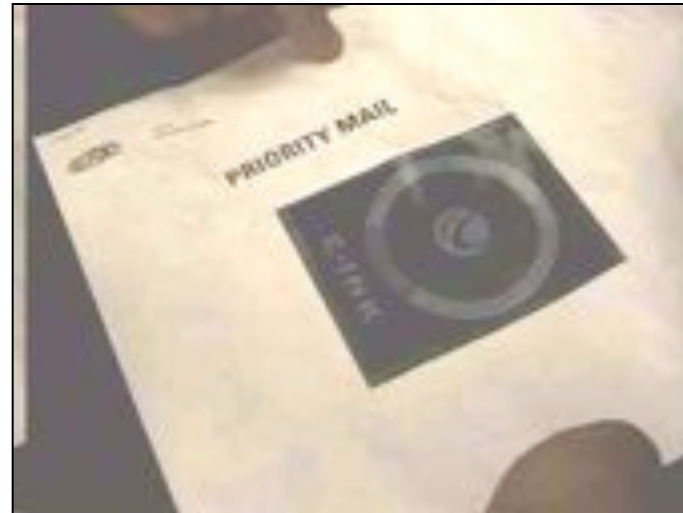


# Electrophoretic Material is Intrinsically Flexible

Plain  
Paper



DuPont  
Tyvek™



Cloth



Thin  
Plastic



Compatible with many substrates for segmented backplane displays

# Killer Application?



- 100M post secondary students worldwide
- Dedicated eTextbooks with flex and color displays
- A library in every village; for every child



# Tablet (LCD) vs eReader (EPD)



- Web browsing and email
- Video entertainment
- Gaming
- Edu-tainment
- Light reading
- Heavy interactivity
- Multi-tasking



- Content “always on”
- Rough handled like a book or notepad
- Weeks between charging
- Readable in any environment
- Moderate interactivity
  - i.e. note taking, navigation, typing
- Focused activity: Single-tasking



# Thank You

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