

ACTIVE MATRIX

EPD PROTOTYPE KIT

BUILD YOUR OWN PORTABLE ELECTRONIC PAPER DEVICE!



E Ink's electronic paper display (EPD) utilizes electro-phoretic technology to offer distinctive advantages over conventional display technologies. High resolution active matrix displays using E Ink Vizplex Imaging Film are reflective and can be read easily in direct sunlight as well as in dimly lit environments, while being able to be seen at virtually any angle – just like paper. Because the display uses power only when an image is changed, displays using Vizplex have extended battery life over competitive display technologies. Vizplex-based displays also results in a compact and lightweight form factor, which is ideal for portable applications.

E Ink's EPD active matrix prototype kits enables customers to quickly develop working prototypes. It includes all the necessary components to enable a rapid proof of concept and fast time to market for customers.

Key Features

- **New, high-resolution panel sizes available using Vizplex™ Imaging Film.**
- **Display supports 8-level grayscale images**
- **Gumstix single-board computer (400 MHz X-Scale CPU) running Linux OS and open source software**
- **E Ink's Metronome™ or PVI's Apollo display controller**
- **Create custom images and slideshows**
- **Rapid prototyping for a variety of applications**

Sample Applications

- **eBooks**
- **eTextbooks**
- **Electronic Dictionaries**
- **Tablets**
- **eNewspaper**
- **Notebook PC Lid Display**

VIZPLEX

IMAGING FILM

KIT COMPONENTS

Display Subsystem:

Multiple options for 5", 6", 8", 9.7" active-matrix EPD displays.

Multi-function Epson display controller

Host System:

Gumstix™ single-board computer, Intel XScale® PXA255 processor

Linux operating system pre-installed

Multiple input-output options: Bluetooth, USB, serial

MMC card reader (256 MB card included)

Expansion board with four software-configurable buttons

Power Supply:

Rechargeable Li-ion battery and Universal power adapter

Software:

Demonstration e-book application

Display driver software

gcc PC-to-XScale cross-compiler and development environment

Source code software

Documentation and Support:

Getting started guide and manual

On-line support



DISPLAY MODULE SPECIFICATIONS

Optical:

White State Reflectivity:	40% (Typical)
Contrast Ratio:	6:1 (Min)
Viewing Angle:	Near 180°
Grayscale Capability:	3-bit (8 gray levels)
Image Update Time: (Typical)	<1s (grayscale mode) 260 ms (1-bit mode)

Environmental:

Operating Temperature Range:	0 – 50 C
Storage Temperature Range:	-25 – 70 C

MECHANICAL / DIMENSIONAL SPECS

	9.7"	8"	6"	5"
Pixel Count:	1200 x 825	1024 x 768	800 x 600	800 x 600
Active Area:	142.1 x 205.5 mm 252.4 mm (9.7") diagonal	164.5 x 127.9 mm 208.8 (8") diagonal	90.6 x 122.4 mm 152.3 mm (6") diagonal	82.5 x 104.3 mm 133.3 mm (5") diagonal
Display Thickness	1.2 mm	1.2 mm	1.2 mm	1.2 mm