

■ Pixels in your pocket

Well, that's not really new is it? You've had pixels in your pocket for years in the form of phones, PDAs, and high-end MP3 players. But, have you ever had them in your wallet? You will.

E-Paper, flexible displays, and electrophoretic displays are right around the corner, and companies like SiPix are driving them into a variety of business, financial, retail, and consumer applications. As an example, SiPix and Smart-Displayer have created a "smart" credit card with an integrated display.

It has become far too easy for credit and debit cards to be used without the owner's consent. Identity theft, fraudulent transactions, and false card verification systems have become so commonplace that it has turned into a multibillion-dollar operation with worldwide ramifications.

There are several key components to preventing such activities; one of them is to provide a randomly generated code that performs a one-time authentication. SiPix e-paper generates the random number on the card's screen, which appears once and is entered once, then disappears forever. These numbers authorize one transaction at a time and are verified transaction by transaction.

SiPix and SmartDisplayer developed the first flexible display panel to be embedded into an ISO-compliant payment card. The result is a powerful smart card that features a flexible 0.25-mm thin, ultra-low-power, bistable display using SiPix' Microcup® Electronic Paper for increased security, control, and personalization.

The SiPix and SmartDisplayer card is an ISO-compliant payment display card featuring SiPix electronic paper display and has received honors from the Society of Information Display (SID).