

E-paper unplugged is key draw at Japan show

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(PhysOrg.com) -- Yet another flexible e-paper display? No. Something special. This concept e-reader has no ho-hum signs of boring repetition. The concept e-reader was shown at last month's FPD International in Japan, the big event focused on flat panel displays, which took place from October 26 to October 28. In fact, it was a top attraction. The new

device from Taiwan-based AU Optronics (AUO) does not need an external power supply.

It is what it is, or rather, what AU Optronics calls it, the Unplugged Flexible E-paper Display.

This six-inch-reader is made up of Rollable Organic TFT (thin film transistor) E-paper with a flexible photovoltaic battery attached to the e-paper. The-reader has 800 by 600-pixel resolution.

That combination of e-paper with PV battery was the attraction, and some say it could signify the future in e-readers. Talk about a marketer's dream—if and when the device hits the stores as an [e-reader](#), the device can sell on its flexible paper and efficiency parts that will not damage easily. Users can drop them in their briefcase or pouches without having to worry. The company says another plus is that the reader's optimized charging circuit design delivers power savings.

The PV battery measures 132 x 212 x 0.3mm and weighs 10g. Solar light generates 1W or more of electricity. A strong light from a lamp is directed at the PV battery. A rechargeable battery is placed under the stand. While the device is self-powered when used in sunlight, the photovoltaics cannot draw enough energy out of indoor lighting.

That is why there is an external rechargeable [battery](#), so that the user can run the device indoors.

AUO has all along been at the forefront in Taiwan in e-paper developments. In 2009, AUO unveiled an e-book reader that carried features which at the time were noteworthy: a low-power electronic paper and a touch panel.

The prototype was also six inches and also housed 800x600 pixels like

the new display at the FPD show. The company makes and markets thin film transistor-liquid crystal displays (TFT-LCDs) and plasma display panels (PDPs). AUO sells its products in domestic markets and also exports worldwide.

AUO at this year's show carried a list of the company's key achievements in display technologies. These include its 65" Extreme-PR 3D Gesture [display panel](#), 46" Scanning Retarder 3D display panel, 65" Transparent display panel, 46" Super Narrow Bezel panel, 6" Flexible displays, its smartphone display panels with high resolution and low energy consumption, and an AMOLED line of [display](#) technologies and applications.

More information: [Press release](#)

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