Super-thin flexible OLED from Sony

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Vaio with flexible OLED screen. Image: Scott Ard/CNET

Sony's flexible OLED-based Vaio notebook--not coming to a store near you. Image: Scott Ard/CNET

(PhysOrg.com) -- Sony is showing off prototypes incorporating its super-thin, flexible OLED technology at the CREATEC JAPAN 2009 IT and electronics trade show in Makuhari Messe (Chiba) in Japan.

Sony's new "bendable" and transparent organic light emitting diode (OLED) technology is being shown in prototypes featuring an OLED a mere 0.2 mm thick. The prototype devices are a Vaio notebook, a flexible e-book, and a Walkman bracelet.

The OLED screen is transparent and flexible, and the viewing angle range is almost unlimited. OLED technology has a number of advantages over LEDs, including higher efficiency, faster response times, and no requirement for backlighting. The devices also have very low energy needs.

The Sony Reader and Walkman redone with flexible OLED technology. Image: Scott Ard/CNET

Early efforts to manufacture transparent and flexible OLEDs met with resolution problems and distortions of the image when the device was bent or folded.

Sony demonstrated an OLED television in 2008 at the Consumer Electronics Show in Las Vegas, Nevada, and a flexible 0.2 mm thick OLED audio

player at this year's show. Several other companies, such as Samsung and LG, are also working on flexible OLED displays.

The devices on show at CEATEC JAPAN are all at the concept stage and there is no indication of when, or even if, they will ever be marketed.

The CEATEC (Combined Exhibition of Advanced Technologies) JAPAN event showcases IT and electronic innovations. The theme for 2009 is "Digital Convergence ? Defining the Shape of Our Future". The exhibition opened on October 6 and runs until October 10.

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