

TOSHIBA DEBUTS FIRST FULL-COLOR 'SYSTEM ON GLASS' (SOG) INPUT DISPLAY WITH IMAGE CAPTURE TECHNOLOGY

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New Color LCD Prototype, which Captures High-Resolution Digital Content via Embedded Sensors, to be Demonstrated at SID 2004 in Seattle

SEATTLE, May 25, 2004 - In an effort further develop leading-edge system on glass (SOG) display solutions, Toshiba America Electronic Components, Inc. (TAEC) today announced it is demonstrating a full-color version of its 'system on glass' (SOG) input display technology, developed by Toshiba Matsushita Display Technology Co., Ltd. (TMD), at the Society for Information Display International Exhibition (SID) 2004, May 25 to 27, in Seattle, Washington, in booth #342. TMD has developed a working color prototype of the display which can directly capture images and/or text via sensors within a thin film transistor (TFT) liquid crystal display (LCD).

The color prototype, a 3.5-inch diagonal, low-temperature polysilicon (LTPS) TFT LCD with QVGA (320 x 240) resolution format, displays color images with an enhanced data input function that captures color images, such as photos or printed text, for redisplay purposes. The input functionality is achieved through sensor devices embedded in the LCD panel, and input resolution at which the image is captured and redisplayed is up to 320 (xRGB) x 240. A monochrome version of the input display was first shown at SID 2003.

TMD regards LTPS as a critical technology for the ongoing development of displays which feature more and more functional integration into the glass substrate itself. Initially, the company integrated peripheral driver LSI circuitry directly into the LCD with LTPS technology to create a wide range of sizes of high resolution displays for cellphone, consumer electronics, and portable computing applications. As the poly-silicon technology developed, TMD successfully commercialized modules with built-in static random access memory (SRAM) and digital analog converters (DAC) for the cellular phone market. At the present time, TMD is demonstrating a color prototype LTPS TFT LCD with data input functionality as a further demonstration of the capabilities of low-temperature polysilicon technology, continuing the company's efforts towards developing true "system on glass" displays.

"The debut of this unit at SID 2004 further illustrates TMD's commitment to the ongoing development of state-of-the-art 'system on glass' display solutions, and its desire to create new LCD technologies that meet the changing demands of customers and users alike," said Steve Vrablik, business development director for LCDs at TAEC. "TMD views polysilicon technology as the display foundation for the future, with the potential to create complete, full-featured SOG displays that can ultimately be designed into new, exciting consumer and business applications."

Unlike a camera, TMD's SOG display captures an actual-size image directly from its embedded sensors. The input display technology opens opportunities for new applications for personal and business use. For example, this technology could be used to capture data from a catalog, read bar codes, recognize and authenticate fingerprints for security purposes, or import a private route map into a PDA from a navigation system. It could also capture color photographic images, and redisplay them, or allow them to be transmitted electronically.

Find the original press release on www.toshiba.com.

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