

Philips announces advanced high-resolution displays for mobile applications

May 28 2004

Philips develops a-Si displays with an integrated gate driver and new pixel design

Royal Philips Electronics announced further advancements in display innovation with a new high-resolution panel using amorphous-silicon (a-Si) technology for mobile applications. Employing the proven capability and reliability of a-Si technology, Philips' new high-resolution transfective panel design provides a long-lasting, bright, cost-efficient mobile display. The high-resolution screen enhances graphics and provides a greater level of detail on small screens displaying images such as maps, photos, and multimedia and Web content.

Philips' innovative a-Si TFT mobile displays represent a breakthrough for high-resolution image quality on small-sized displays. By using a new high-resolution transfective panel design with a-Si, many of the fundamental issues associated with the technology are overcome due to two key factors. First, the unique display design integrates a long-lifetime gate driver in a-Si directly on the glass rather than mounted on the glass ledge. This results in a more symmetrical design and opens up additional viewing space on the display. The integrated gate driver reduces complexity by lessening the number of interconnection leads necessary on the display. Additionally, the simplification and incorporated gate driver provide cost-reduction benefits. The second key factor involves a new design called "progressive pixel," which minimizes the inert part at the edges of the transmissive areas in the pixel. The

progressive pixel layout enhances the display performance in both transmissive and reflective modes, especially when used in displays with high pixel density. The result is an enhanced transmissive reflective display design, which can be viewed clearly with any light source.

The resolution of Philips' a-Si TFT display includes a 1.9-inch QVGA (240 x 320), 210 dpi and 262k-color depth per pixel.

Philips' high-resolution a-Si TFT displays underscore the company's commitment to provide cutting-edge systems for telecommunications applications that meet the industry's evolving demands for rich display content. As an established leader in active-matrix LCD (AMLCD) technologies for the mobile market, Philips offers an extensive portfolio of display technologies featuring a-Si and LTPS products.

Full press release at www.semiconductors.philips.com/ .

Citation: Philips announces advanced high-resolution displays for mobile applications (2004, May 28) retrieved 23 April 2024 from <https://phys.org/news/2004-05-philips-advanced-high-resolution-mobile-applications.html>

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