

15-Inch XGA LCD Module with Ultra-Advanced, Super-Fine TFT Technology for High-End Industrial Use



NEC LCD Technologies, Ltd. today announced that sample shipments of its 15-inch (38cm-diagonal) extended graphics array, thin film transistor, ("XGA TFT") color liquid crystal display ("LCD") module, part number "NL10276BC30-17", will commence February 2005. Boasting a superior degree of high-quality images this model, aimed at the high-end industrial market, is suitable for a variety of applications such as medical diagnostic imaging, motion picture editing, and broadcasting systems.

The main characteristics of the new model are as follows:

1. High luminance & wide color gamut

High luminance of 300cd/m² and a wide color gamut of 72%, equivalent to that of a cathode-ray tube ("CRT"), are realized through NEC LCD Technologies' own unique UA-SFT technology (*1), which boasts improved panel transmissivity (180% from A-SFT technology (*2), and 120% from SA-SFT technology (*3)). This LCD achieves accurate color reproduction of clear and vivid color images even in bright environments.

2. Ultra-wide viewing angle

UA-SFT technology also enables an ultra-wide viewing angle of 170 degrees (contrast ratio greater than 10:1) and reduces the color and/or contrast shift problem that occurs due to a change in viewing angle. Allowing greater flexibility in terms of installation location and viewing position, the 15-inch LCD is also suitable for multi-screen use.

3. 16.77 million colors

The new module succeeds in realizing simultaneous display of 16.77 million colors, the highest number in this category, by supporting low voltage differential signaling ("LVDS") 8-bit signal input. This enables natural and smooth display of colorful images such as photographs or computer graphics.

Recently, CRTs are being increasingly replaced by LCDs for a variety of industrial uses. In high-end industrial fields such as medical diagnostic imaging, motion picture editing and broadcasting systems, LCD display performance equivalent to that of CRTs has become a vital replacement condition. In the fields of broadcasting and motion picture editing, there is a high demand for small/medium-sized monitors with high picture quality and high brightness for TV operation or movie studios that monitor various pictures displayed on multiple screens, or for outdoor location shooting. In the medical field, small/medium-sized

high-picture quality monitors are also required for various modality systems such as the endoscope, ultrasonograph, or funduscope.

NEC LCD Technologies responded to these needs by launching an 8.4-inch XGA TFT color LCD module (part number NL10276BC16-01) in July 2003, the first product equipped with UA-SFT technology, and has contributed to the promotion of the replacement of CRTs with LCDs in the above fields. However, customers in these fields expressed their need for an enhanced version of the 8.4-inch product, which led to the development of the 15-inch module.

"Our new 15-inch TFT LCD module boasts picture performance equivalent to that of our 8.4-inch TFT LCD, and we are satisfied that it can meet the various demands of the medical diagnostic imaging, motion picture editing, and broadcasting system fields, adding to our extensive line of superior quality products" said Hidetoshi Usui, department manager in charge of product planning and marketing, NEC LCD Technologies, Ltd.

NEC LCD Technologies will continue to expand the sales promotion of this new product to a wide-range of industrial fields which require high picture quality, and to develop and promote various TFT LCD modules to respond to the emerging needs of a variety of industrial fields.

Notes:

- (1) UA-SFT Technology: NEC LCD Technologies' own ultra-advanced, super-fine TFT technology.
- (2) A-SFT Technology: NEC LCD Technologies' own advanced, super-fine TFT technology.
- (3) SA-SFT Technology: NEC LCD Technologies' own super-advanced, super-fine TFT technology.

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