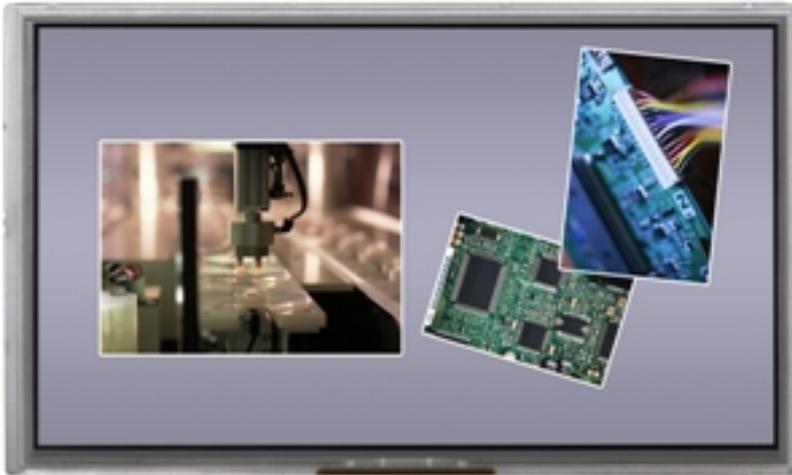


## **Color, thin-film transistor features ultra-wide angle viewing**



NLT Technologies (NLT) Ltd.,

together with Renesas Electronics America, its sales and marketing channel in the Americas, today introduced two new color thin film transistor (TFT) LCD modules, expanding its robust lineup of industrial wide aspect ratio display modules.

Featuring ultra-wide angle viewing and other technologies for enhanced image viewability and low power consumption, the two new 10.6-inch WXGA display modules, partnumbers NL12876AC18-03 and -03D, are optimized for use in portable medical equipment, industrial equipment and industrial-grade tablets that require increased data display and reliable color reproduction with off-angle viewing and varying display orientations.

The new devices will be on display in the Renesas Electronics America booth (#343) at Display Week 2012 in the Boston Convention and Exhibition Center, June 5-7.

The new 10.6-inch display modules feature ultra-wide viewing angles of 176 degrees horizontally and vertically, high brightness of 300 candelas per square meter (cd/m<sup>2</sup>) and a high-contrast ratio of 1000:1, all in a small-profile, narrow frame.

### **Increased Functionality**

The wide aspect ratio format offers greater flexibility in the amount of data displayed. For instance, using the 16:10 format, users could display greater amounts of information on the device screen. Alternately, they could display data in a traditional 4:3 ratio and leverage the additional space for touch-screen features for increased functionality.

### **Enhanced Viewing Performance**

To achieve high-luminance, wide color gamut and vivid color display levels, the new 10.6-inch LCD modules incorporate two of NLT Technologies' advanced core technologies - Ultra Advanced Super-Fine TFT (UA-SFT), NLT's proprietary version of

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in-plane-switching technology (IPS), and ColorXcell, an integrated color-enhancement technology that delivers color reproduction that is comparable in color intensity to the original video source, without tint or color variance and with minimal increase in power consumption.

The UA-SFT technology allows images to be viewed easily and accurately in both portrait and landscape orientation from almost any angle without color shift or compromising brightness. This viewing flexibility is important for applications where the display orientation may vary or where users require accurate imaging results from multiple viewing angles, such as portable medical imaging and diagnostics or test and measurement equipment.

### **Low Power, Flexible Design**

Typically, higher saturated color filters are needed to improve color reproduction but at the cost of reduced transmissivity. Maintaining the same peak luminance would then require increasing the intensity of the backlighting, which increases power consumption. NLT's ColorXCell technology accomplishes the same using standard color filters without the loss of transmissivity, so no increase in backlighting is needed, maintaining lower power consumption.

The new 10.6-inch display modules also feature an LED backlight system with built-in LED driver that can support a wide input voltage range, from 5V-12V. This provides customers and design engineers with greater flexibility depending upon their design needs. By combining ColorXCell with a built-in wide-range LED driver, NLT is able to provide products with greater flexibility, power savings and color performance.

### **About Renesas Electronics America's Display Business**

Renesas Electronics America is the authorized representative in the Americas of NLT Technologies, Ltd. (established July 2011 as a joint venture between NEC Corporation and Shenzhen AVIC Optoelectronics, Ltd.), a leading supplier of innovative LCD products for industrial applications. With an extensive lineup of 2.7- to 22.5-inch active-matrix LCD modules and a network of distributors and value-added partners (VAPs), Renesas Electronics America provides complete display module solutions from NLT Technologies to the industrial, medical and high-end monitor market. In addition to modules based on NLT Technologies' SFT for ultra-wide viewing, Renesas Electronics America also offers LCD modules that include ultra-high resolutions, wide temperature ranges, high contrast ratios, rich color gamuts, backward compatibility, LED backlights, and transfective viewing for use in diverse lighting environments.

Renesas Electronics America and NLT Technologies are committed to delivering innovative, high-performance, eco-conscious LCD solutions that address the diverse size, power and high image-quality needs of their industrial, medical and high-end monitor customers. Based on technologies developed by NLT Technologies, the LCD modules are optimized and designed for a range of applications, including portable and fixed medical equipment, test and measurement devices, instrumentation equipment, point-of-sale systems, gaming systems, global positioning systems, radio-frequency identification devices and barcode scanners.

### **Renesas Electronics America**

<http://www.am.renesas.com/prod/displays> [1]

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