

NEC LCD Technologies Introduces New 3.5-inch LCD Module For All Ambient Lighting Conditions

TOKYO, SANTA CLARA, Calif., U.S.A., DÜSSELDORF, Germany, April 14, 2009

---NEC LCD Technologies, together with its sales and marketing channels in the Americas and Europe, NEC Electronics America, Inc. and NEC Electronics (Europe) GmbH, today introduced a new 3.5-inch (8.9cm) amorphous-silicon transfective thin-film-transistor (TFT) liquid crystal display (LCD) module with quarter video graphics array (QVGA) resolution (part number NL2432HC22-45A), which features higher reflection properties than previous 3.5-inch models. The display is targeted for use in small, professional applications such as handheld terminals, as well as in personal digital assistant (PDA) and portable navigation device (PND) applications.

The new product incorporates NEC LCD Technologies' super-reflective natural light (SR-NLT) technology, a proprietary technology that enhances LCD performance in outdoor lighting environments. In the reflective mode, the display module capitalizes on NEC's optimum LCD panel design to provide excellent visibility and viewing angle characteristics, even in outdoor daylight conditions. In addition, the module enables reading the displayed information with the backlight off, thereby reducing power consumption.

With the expansion of the ubiquitous information society, the demand for portable devices using LCD modules has increased and diversified. An example of an emerging portable display application is handheld terminals, which require high visibility in all ambient lighting conditions to enable quick recognition of data on the display while minimizing power consumption, thus extending battery life for longer field usage.

Generally, portable information display instruments use either transmissive or transfective LCD modules that can operate in both transmissive mode (using the light from the backlight) and reflective mode (using the available ambient light). In both transmissive and transfective modules, the backlight consumes between 70 to 90 percent of the displays' total power consumption.

NEC LCD Technologies' new 3.5-inch module developed in response to the demand for lower power-consumption displays in portable applications, combines the company's transmissive and SR-NLT technologies to provide a transfective LCD module solution that can operate with the backlight either on or off depending on the lighting environment.

The new product has a high reflection ratio of 16 percent and a contrast ratio of 20:1 in reflective mode. The module also achieves improved viewing angle characteristics in reflective mode by diffusing reflection for wide-angle viewing. This allows for high visibility, with the backlight turned off, under strong light conditions such as outdoor daylight viewing as well as under indoor ambient-light conditions.

NEC LCD Technologies will continue to develop high value-add products for portable display applications that contribute to the expansion of a ubiquitous information society.

The NL2432HC22-45A 3.5-inch module will be on display in NEC Electronics America's booth (#459) at the Society of Information Display (SID) 2009 at the Henry B. Gonzalez Convention Center in San Antonio, Texas, June 2-4. Main specifications of the new LCD module can be found at <http://www.am.necel.com/display/displaydetail.html?part=NL2432HC22-45A>.

About NEC LCD Technologies

NEC LCD Technologies, Ltd. is one of the world's leading providers of high-quality, innovative, active-matrix liquid crystal display (AM-LCDs) modules for the industrial and high-end monitor markets. The company focuses its development on four core technology areas: ultra-wide viewing angle SFT technology with high luminance, wide color gamut and fast response; NLT technology for high visibility in any kind of ambient light environment; VIT technology to add extra value to LCD modules; and adaptive design technology, which together meet a variety of specialized needs for the flat panel display markets. NEC LCD Technologies' worldwide support includes sales and marketing affiliates NEC Electronics America, Inc. (www.am.necel.com) and NEC Electronics (Europe) GmbH (www.eu.necel.com) that offer specialized display solutions to their respective markets. NEC LCD Technologies employs approximately 1,200 people worldwide and offers one of the broadest product portfolios for the medical, factory automation, test and measurement, entertainment, kiosk, POS and ATM markets. Additional information can be found at <http://www.nec-lcd.com/en/index.html>.