3M Demonstrates Suite of Display Film Solutions During SID Display Week 2010

Building upon its efforts to improve energy efficiency in electronic devices, 3M's Optical Systems Division will showcase a number of energy efficient exhibits for notebooks, handheld devices, monitors and LCD TVs during SID Display Week 2010, to be May 24-28 in Seattle, Wash. In addition, the company will demonstrate its glasses-free 3D film for handhelds—the world's only film to deliver auto-stereoscopic 3D without impacting color or resolution of the displays.

"Improving energy efficiency in electronic devices is more than just a trend, but rather a real force that is forever changing mobile, computing and TV solutions as we know them," noted Erik Jostes, 3M's LCD Business Director. "Our newest demonstrations during Display Week highlight 3M's commitment to increasing energy efficiency for the next generation of electronic devices through the development of its optical film solutions."

During Display Week, 3M will show the following:

USB-Powered, 10 Watt Monitor using Vikuiti Monitor Dual Brightness Enhancement Film
3M will also show an 18.5-inch desktop monitor powered by a computer USB port. 3M has used the efficiency improvements from 3M DBEF (Dual Brightness Enhancement Film) and LEDs to demonstrate low power consumption and to enable direct current (DC) powered displays using the USB port. Incorporating DBEF in this energy efficient design enables simplification and reduction of components through the removal of the AC to DC power conversion.

Glasses-Free 3D Film for Handheld Devices
3M will show its field sequential 3D optical film for handheld devices—enabling true auto stereoscopic 3D viewing on mobile phones, gaming and other handheld devices without the need for glasses. The film only requires one LCD panel, operating at a 120Hz refresh rate. Backlight module assembly is nearly identical to existing systems—allowing for simple integration at the assembly stage.

Dual Brightness Enhancement Film (DBEF) for LCD TVs, a Reflective Polarizer, Enables Broader Luminance Viewing Angles and Up to 32% Energy Savings
Building upon its portfolio of optical film solutions, 3M will showcase a benefit of its Dual Brightness Enhancement Film (DBEF) for LCD TVs, which is available for all LCD TV sizes. In addition to DBEF's ability to enable thinner displays and reduce set power consumption by up to 32%, the technology enables a broader luminance viewing angle. This has direct benefit in the retail environment where TVs using DBEF stand out among other TVs, particularly when viewed at oblique angles on the store shelves. The film also has direct benefits to the end user who views the TV

from oblique angles. DBEF increases brightness by recycling polarized light, and is fully compatible with other structured backlight films.

3M Notebook Brightness Enhancement Film - Reflective Polarizer (NB BEFRP) Enables Thinner Displays—Only 180 Microns Thick
3M will also show its newest notebook film, a Brightness Enhancement Film - Reflective Polarizer (NB BEFRP) for notebooks. The film combines a reflective polarizer with a prism film that's only 180 microns thick—enabling displays that are 135 microns thinner than using two separate films and also providing a wider viewing angle.

Optical Film Solutions for Handheld Devices Improve Form Factor, Efficiencies and Water/Vapor Resistance
3M will show prototypes of its 95 micron Advanced Structured Optical Composite (ASOC), which delivers the optical power of crossed prism films with environmental robustness similar to optical films with twice its total thickness. In addition, the company will present OLED light extraction technology, providing significant efficiency improvements for OLED light sources and allowing for as much as a 100% increase in axial luminance. The company's Flexible Transparent Barrier (FTB) film, which provides water vapor resistance to protect OLED and e-paper displays, will also be showcased.

Visit 3M's booth #205 at SID Display Week to see 3M's demonstrations within the Washington State Convention Center.

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