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Universal Display and Samsung Mobile Display Present Advances in Highly Efficient, Long Lifetime Green Phosphorescent OLEDs at SID 2009

Engineers from Both Companies Demonstrate High-Efficiency Green PHOLEDs with Enhanced Performance for Low-Power OLED Displays for Portable Hand-Held Products and TVs

SID Display Week 2009
Booth #676

EWING, N.J.--([BUSINESS WIRE](#))--Universal Display Corporation (NASDAQ:PANL), an innovator behind today's and tomorrow's displays and lighting through its UniversalPHOLED™ phosphorescent OLED technology and materials, today announced new highly-efficient green PHOLED performance advances at the Society for Information Display's (SID) 2009 International Symposium, Seminar and Exhibit. The conference is being held at the Henry B. Gonzalez Convention Center in San Antonio, TX from May 31 – June 5.

“Demonstrating the performance of these green PHOLED material systems, in collaboration with our longstanding partner, Samsung Mobile Display, enhances the potential for making high-performance, cost-effective OLED displays for these and other exciting applications.”

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Dr. Mike Weaver, Director of PHOLED Applications Engineering and Development at Universal Display, presented the advances in a paper titled “High Efficiency Green Phosphorescent OLEDs” in Session 23 of the Conference's OLED Devices I Track. The paper was presented in conjunction with Samsung Mobile Display Co. Ltd. (SMD).

During the presentation, Dr. Weaver described a highly-efficient, green UniversalPHOLED material that has been used in a top-emission PHOLED device architecture. Using this approach, the team achieved two milestones. A green PHOLED with NTSC color at CIE(0.20, 0.73), high luminous efficiency of 110 candelas per Ampere (cd/A), and a low voltage of 3.6 V at 3,000 candelas per square meter (cd/m²) was achieved. A second device structure using this green PHOLED material system also achieved an ultra-high luminous efficiency of 160 cd/A along with CIE(0.28, 0.69) and low voltage of 3.8 V at 3,000 cd/m². These compare to a standard bottom-emission device with CIE(0.33, 0.62) and 52 cd/A using this same green PHOLED material system. Replacing the green fluorescent OLED material typically used today in an AMOLED with this new green PHOLED can result in a significant 37% power savings.

The operational lifetime for this green PHOLED material system is also very good. A bottom-emission device using this material system offers > 300,000 hours to 50% (extrapolated) and 15,000 hours to 90% of the initial luminance of 1000 cd/m² (defined as LT90). With these top-emission devices, the LT90 lifetime is 28,000 hours and 6,400 hours, respectively, for the 110 cd/A and 160 cd/A devices.

“Samsung Mobile Display is pleased to have worked with Universal Display to develop new levels of green phosphorescent OLED efficiency and lifetime,” said Dr. Sang Soo Kim, Samsung Fellow and Executive Vice President of the Technology Center, Samsung Mobile Display.

“It is an honor to work with Samsung Mobile Display to demonstrate these milestones in green PHOLED device performance. Highly-efficient phosphorescent OLED materials and technology are a key competitive requirement for high-

performance AMOLEDs for mobile display applications as well as TVs,” said Steven V. Abramson, President and Chief Executive Officer of Universal Display. “Demonstrating the performance of these green PHOLED material systems, in collaboration with our longstanding partner, Samsung Mobile Display, enhances the potential for making high-performance, cost-effective OLED displays for these and other exciting applications.”

The SID International Symposium, Seminar and Exhibition, now in its 47th year, is the premier international gathering of scientists, engineers, manufacturers and users in the electronic-display industry. With more than 350 booths and 6,000 attendees, SID is the leading North American show for the electronic-display industry. More information can be found at: www.sid.org.

To see how Universal Display Corporation is changing the face of the display and lighting industries, please visit the Company at Booth #676 and at www.universaldisplay.com.

About Universal Display Corporation

Universal Display Corporation is a world leader in developing and commercializing innovative OLED technologies and materials for use in flat panel displays, solid-state lighting products, electronic communications and other opto-electronic devices. Universal Display is working with a network of world-class organizations, including Princeton University, the University of Southern California, the University of Michigan, and PPG Industries, Inc. Universal Display has also established numerous commercial relationships with companies such as Chi Mei EL Corporation, DuPont Displays, Inc., Konica Minolta Technology Center, Inc., LG Display Co., Ltd., Samsung Mobile Display Co, Ltd., Seiko Epson Corporation, Sony Corporation, Tohoku Pioneer Corporation and Toyota Industries Corporation. Universal Display currently owns or has exclusive or sole license rights with respect to more than 940 issued and pending patents worldwide.

Universal Display is located in the Princeton Crossroads Corporate Center in Ewing, New Jersey. Universal Display's state-of-the-art facility is designed to further technology and materials development, technology transfer to manufacturing partners and work with customers to develop OLED products that meet their needs. Visit Universal Display on the Web at www.universaldisplay.com.

Forward-Looking Statements: All statements in this document that are not historical, such as those relating to Universal Display Corporation's technologies and potential applications of those technologies, are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. You are cautioned not to place undue reliance on any forward-looking statements in this document, as they reflect Universal Display Corporation's current views with respect to future events and are subject to risks and uncertainties that could cause actual results to differ materially from those contemplated. These risks and uncertainties are discussed in greater detail in Universal Display Corporation's periodic reports on Form 10-K and Form 10-Q filed with the Securities and Exchange Commission, including, in particular, the section entitled "Risk Factors" in Universal Display Corporation's annual report on Form 10-K for the year ended December 31, 2008, as amended. Universal Display Corporation disclaims any obligation to update any forward-looking statement contained in this document.

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