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Universal Display and the Flexible Display Center at ASU Enhance Strategic Relationship to Supply Flexible Active-Matrix PHOLED Display Prototypes to U.S. Army

Universal Display Also Awarded \$650,000 U.S. Army SBIR Phase II Enhancement Program to Support Demonstration of Enhanced-Performance AMOLEDs on Plastic Substrates

EWING, N.J. & TEMPE, Ariz.--([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 the Flexible Display Center (FDC) at Arizona State University, today announced that they have strengthened their collaboration to extend to the joint fabrication of prototype active-matrix PHOLEDs on flexible plastic substrates for the U.S. Department of Army. In addition, Universal Display announced that the company has been awarded a \$650,000 U.S. Army Small Business Innovation Research (SBIR) Phase II Enhancement contract to support this work.

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Universal Display, a charter FDC member since its founding in 2004, and the FDC believe that their enhanced strategic relationship will accelerate the demonstration of high-performance, active-matrix PHOLEDs on flexible plastic substrates for the U.S. Army and others. Earlier this year the FDC and Universal Display demonstrated a 4.1” monochrome quarter video graphics array (QVGA) amorphous-silicon (a-Si:H) PHOLED display produced on DuPont Teijin's polyethylene naphthalate (PEN) substrate.

“Our work with Universal Display highlights the type of collaborative development taking place at the FDC and the clear benefits that the Center's model brings to technology development,” said Nick Colaneri, Director of the Flexible Display Center. “Universal Display has been involved in the FDC since its inception, and together we have already achieved a number of key milestones related to flexible OLED technology, including manufacturing a functional flexible OLED directly on plastic using the Center's manufacturing process. We welcome an even stronger partnership with Universal Display with the goal of accelerating the delivery of lightweight, flexible OLED technology into the field where its benefits to soldiers will be significant.”

As part of this strategic relationship, Universal Display and the FDC will work to demonstrate flexible OLED display prototypes with enhanced performance for the U.S. Army. The FDC will fabricate a-Si:H thin-film transistor (TFT) arrays on flexible plastic substrates using their low-temperature backplane and proprietary bond-debond manufacturing technologies. Universal Display will then use its UniversalPHOLED materials and technology to build full-color AMOLED displays.

“We look forward to accelerating the Army's goals to enable flexible PHOLED technology for the Soldier through the SBIR contract for barrier technology in conjunction with the joint Universal Display-FDC fabrication work,” commented Eric Forsythe, Team Leader Flexible Displays and Electronics, Army Research Laboratory.

For prototypes to be delivered under the U.S. Army SBIR Phase II Enhancement Program, Universal Display will also use

its proprietary encapsulation film technology to create permeation barriers on the substrate and on top of the OLED to prevent harmful moisture and oxygen from reaching the OLED device.

“With the progress demonstrated to date and the excellent work ongoing at the Flexible Display Center and Universal Display, we seek to demonstrate continued performance advances toward our goal of delivering rugged, long-lived, thin and lightweight flexible OLED display prototypes,” stated Steven V. Abramson, President and Chief Executive Officer of Universal Display. “Through the continued support of the U.S. Army, flexible OLEDs have the potential to enable the development of lighter weight, thinner and more durable portable electronics for communication and data uses for military and commercial applications alike.”

OLEDs offer numerous advantages when compared to today’s LCDs, including a more beautiful visual appearance and thinner form factor. In addition, when using Universal Display’s proprietary UniversalPHOLED phosphorescent OLED technology and materials, OLEDs can consume significantly less power than comparable LCDs and conventional fluorescent OLEDs.

One of the exciting novel features of OLEDs is their ability to be built on flexible substrates, including plastic or metal foil. Through the development of a novel low-temperature a-Si:H manufacturing process, FDC has enhanced the ability to employ commercially-available plastic substrates in the fabrication of active-matrix flexible OLEDs. Flexible OLEDs may open up a wide range of new display applications, including novel, compact and light weight information and communications systems for military and commercial applications.

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 960 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.

About the Flexible Display Center at Arizona State University

The FDC is a government – industry – academia partnership that’s advancing full-color flexible display technology and fostering development of a manufacturing ecosystem to support the rapidly growing market for flexible electronic displays. FDC partners include many of the world’s leading providers of advanced display technology, materials and process equipment. The FDC is unique among the U.S. Army’s University centers, having been formed through a 10-year cooperative agreement with Arizona State University in 2004. This adaptable agreement has enabled the FDC to create and implement a proven collaborative partnership model with over 20 engaged industry members, and to successfully deploy world class wafer-scale R&D and GEN-II display-scale pilot production lines for rapid flexible display technology development and manufacturing supply chain commercialization.

More information on the Flexible Display Center can be found at www.flexdisplay.asu.edu.

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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