



News Release

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Komori Corporation to join NextFlex as Equipment Affiliate for commercialization of FHE technologies

Komori Corporation (Sumida-ku, Tokyo; President, Representative Director and COO: Satoshi Mochida) has agreed to lend a Pepio F6 gravure offset printing press for fine lines to NextFlex, a U.S. national institute whose mission is to facilitate technical innovation and commercialization of Flexible Hybrid Electronics (FHE), and to join NextFlex as an Equipment Affiliate and conduct development collaborations. The following is an outline.

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Komori Corporation has agreed to lend a Pepio F6 gravure offset printing press for fine lines to NextFlex, a U.S. national manufacturing institute whose mission is to facilitate technical innovation and commercialization of Flexible Hybrid Electronics (FHE), and to join NextFlex as an Equipment Affiliate and conduct development collaborations. In the future, Komori plans to provide (Printed Electronics (PE) solutions based on our ultra-high-precision gravure offset technologies to this institute. The Pepio F6 will be displayed from Monday, February 12 to Thursday, February 15, 2018, at 2018FLEX, an international conference to be held in California, and then will be installed at NextFlex.

The field of Flexible Hybrid Electronics (FHE) combines Printed Electronics (PE), and advanced semiconductor packaging technology. Both FHE and PE, the use of printing technologies to form electronic circuits, are expected to have considerable growth potential. Komori has developed roll-to-roll gravure offset and flatbed gravure offset printing presses that can form fine lines by printing. In addition, all-printed electrostatic capacitance touch panels using high-definition printed metal mesh that were developed jointly with the Industrial Technology Research Institute (ITRI) of Taiwan have been well received, and mass production processes have been established. Technological development and the expansion of the PE business are being further promoted by means of the screen printing technology and sales channels of Seria Corporation, which joined the Komori Group in 2014.

As a result of the uptake of the Internet of Things (IoT), the demand for semiconductors in sensors and communication devices is increasing dramatically. FHE is a technology in the spotlight for its ability to manufacture a range of devices with high quality and at low cost by combining circuits in devices made with conventional semiconductor technology such as memory, microcomputers and sensors with PE that use flexible materials as substrates.

Dr. Malcolm Thompson, Executive Director of NextFlex, commented as follows on the agreement: "We are delighted to have the Komori Pepio F6 gravure offset printing press installed at NextFlex as it will complete the extensive suite of print technology equipment that can be accessed by members and the FHE community. If FHE is to deliver on the promise of the Internet of Things, we must have strong partners from the manufacturing ecosystem that deliver high quality print results, and adding Komori to the NextFlex Technology Hub is a great step forward."

Eiji Kajita, Director and head of the Corporate Planning Office of Komori





Corporation, said: "I am very pleased that Komori will be able to contribute as an Equipment Affiliate to NextFlex's goal of the development and commercialization of FHE technologies. The Komori Group will take the opportunity of this project to make greater efforts to realize a better IoT society.

The Pepio series are high-definition gravure offset printing presses capable of forming fines with L/S=20/20 (μ m) or less and metal mesh lines of 5 (μ m) or less. The presses are sold through Seria Corporation. By installing the Pepio F6 at NextFlex's research facility in San Jose, California, Komori's provision of this technology will not only provide an opportunity for developing collaborations with NextFlex and support technical innovation in FHE manufacturing but also contribute to the implementation of devices in the age of printed electronics through the realization of fine lines that were not possible with printing up to now.

■ About NextFlex

Formed in 2015 through a cooperative agreement between the U.S. Department of Defense (DoD) and the FlexTech Alliance, NextFlex is a consortium of companies, academic institutions and state, local and federal governments with a shared goal of advancing U.S. manufacturing of FHE. By adding electronics to new and unique materials that are part of our everyday lives in conjunction with the power of silicon ICs to create conformable and stretchable smart products, FHE is ushering in an era of "electronics on everything" and advancing the efficiency of our world.







Dr. Malcolm Thompson, Executive Director of NextFlex (left), Eiji Kajita, Director and head of the Corporate Planning Office of Komori Corporation (right)



Pepio F6 gravure offset printing press for fine lines