

SCREEN to join NextFlex as Equipment Affiliate in Flexible Hybrid Electronics Manufacturing

Provides Ultra-precision Gravure Offset Flatbed Printing System for Evaluation of Fine Line Deposition

Kyoto, Japan – August 30, 2017 – SCREEN Holdings Co., Ltd. will install a UP-5000S ultra-precision gravure offset flatbed printing system at NextFlex, a California-based institute whose mission is to facilitate technological innovation and commercialization of flexible hybrid electronics (FHE). In December 2017, SCREEN will begin providing additional technologies and solutions it possesses in the printed electronics field, with the goal of producing commercial FHE devices.

In recent years, the rapid growth in demand for systems targeting the Internet of Things (IoT) market has created significant interest in printed electronics. The field offers many exciting possibilities for the convenient, low cost production of highly reliable devices. Printed electronics essentially use printing technologies to eliminate many of the steps involved in conventional production processes for electronic circuits.

At present, while expectations are high for the growing introduction of disposable applications such as biosensors, the creation of nanometer level microcircuits remains difficult with current technologies. To address this issue, efforts are being made to integrate printed electronics and existing semiconductor technologies to enable the production of the integrated circuits necessary for device formation. As the two areas are combined with increasing effectiveness, the resulting FHE technologies are expected to enable major gains in both functionality and performance while also decreasing costs. Many industries are watching developments with considerable interest.

NextFlex brings together a diverse set of companies, academic institutions, non-profits and state, local and federal government partners to facilitate technology advancement in FHE, accelerate workforce development for advanced manufacturing and promote a sustainable manufacturing ecosystem.

“NextFlex is pleased to be able to have access to the advanced electronic printing capabilities developed by SCREEN,” noted Dr. Malcolm Thompson, Executive Director of NextFlex. “We expect to be able to offer these capabilities to our members and the overall FHE community in early 2018,” Dr. Thompson continued.

Mr. Masahiro Joshi, Senior Corporate Officer at SCREEN Holdings mentioned, “We are highly honored to join the development and commercialization activities of FHE promoting the IoT. SCREEN will take advantage of

NextFlex participation to accelerate our efforts for advancement and commercialization of this technology.”

SCREEN has built a strong reputation for using gravure offset, plate-based transfer methodologies to improve the miniaturization of circuits in the printed electronics industry. This success is behind its upcoming installation of a UP-5000S ultra-precision gravure offset flatbed printing system at NextFlex’s research facility in San Jose, California. SCREEN’s provision of technical assistance to NextFlex will also provide an opportunity to develop collaborations with participating NextFlex member organizations. These partnerships are expected to both support the advancement of FHE manufacturing and promote the continuing expansion of the wider electronics industry.

About NextFlex

NextFlex, America’s Flexible Hybrid Electronics Manufacturing Institute, is a leading force in the Manufacturing USA network of institutes. Formed through a cooperative agreement between the US Department of Defense (DoD) and FlexTech Alliance, a SEMI strategic association partner, NextFlex is a consortium of companies, academic institutions, non-profits and state, local and federal governments with a shared goal of advancing US manufacturing of FHE. Since its formation in 2015, NextFlex's elite team of thought leaders, educators, problem solvers and manufacturers have come together to collectively facilitate innovation, narrow the manufacturing workforce gap and promote sustainable manufacturing ecosystems. For more information, visit www.nextflex.us and follow NextFlex on [LinkedIn](#) and [Twitter](#).

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