

## Epishine Selects CAP-XX High Efficiency Supercaps for Thin Indoor Light Energy Harvesting Solution

Epishine's light energy harvesting evaluation module uses thin CAP-XX supercap for energy storage to demo how to eliminate batteries in small, low-power devices

SYDNEY, AUSTRALIA, February 16, 2021 /EINPresswire.com/ -- CAP-XX Limited (LSE:CPX), the leading manufacturer of ultra-thin prismatic and cylindrical supercapacitors, announced that Sweden-based Epishine, a leading manufacturer of printed organic solar cells, has selected the CAP-XX GA230 supercapacitor for its indoor light energy harvesting (LEH) evaluation module. The module demonstrates how Epishine's indoor light energy harvesting cells, when combined with a



Epishine, CAP-XX, and e-peas created an indoor light energy harvesting solution to power small, lowpower, battery-free devices that are normally powered by batteries.

thin CAP-XX supercap, can power indoor wireless sensors, electronics, IoT devices and other low-power devices that are normally powered by batteries.

The new Epishine/CAP-XX/e-peas indoor light energy harvester LEH3 evaluation module features Epishine's 50 x 50mm photovoltaic indoor light cell to harvest ambient indoor light, a high-efficiency CAP-XX 3.5mm thin 400mF GA230 supercapacitor to store the harvested energy, and the e-peas AEM10941 energy harvesting power management integrated circuit (PMIC) for intelligent supercap charging and overall system power management. Once indoor light energy is harvested and stored in the supercap, it can power electronics and IoT devices when light is not available, can serve peak energy demands of the device, and can either eliminate the need for a battery or prolong battery life in typical low-power applications.

"A supercap is essential for storing Epishine's harvested light energy to keep devices operational when indoor light is unavailable," said Marco Ranalli, general manager of CAP-XX Europe. "We

share Epishine's mission to enable battery-free products worldwide through environmentally-conscious energy harvesting, as our supercapacitors are made of nonhazardous, common materials like activated carbon and aluminum."

Intended for indoor light environments, the compact evaluation module (81 x 71.5 x 3.8mm) contains everything needed for manufacturers to test if the solution will generate enough energy to power their devices without a battery. Supporting output voltages ranging from 1.8V to 3.3V, the solution can deliver sufficient output

**Epishine Eval Module Block Diagram** CAP-XX Supercap Epishine Texas e-peas AEM 10941 GA230 light module 6-cells 1

Epishine's photovoltaic indoor light cell harvests indoor light, a CAP-XX 3.5mm thin 400mF GA230 supercap stores the harvested energy, and an e-peas AEM10941 energy harvesting PMIC provides intelligent supercap charging and overall system power management.

current to power most low-power radios such as BLE, Zigbee and LoRa.

Epishine, CAP-XX and e-peas will present a webinar, 'Eliminate Batteries with Indoor Light Energy



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> Marco Ranalli, general manager of CAP-XX Europe

Harvesting and Supercaps," on March 3 at 5pm CET (4pm GMT, 11am ET, 8am PT). To register go to:

https://www.cap-xx.com/eval-module-webinar/

"Our goal is to enable sustainable solutions, from both an environmental and maintenance perspective, by eliminating the need for battery replacement," said Mattias Josephson, vice president of business development and cofounder of Epishine. "We chose the CAP-XX supercapacitor for our evaluation module for its amazing charge efficiency and thin profile to enable devices with small form factors."

"By combining the low-light performances of Epishine's new photovoltaic indoor light cell, our AEM10941 energy harvesting PMIC, and the CAP-XX ultra-thin supercap, the LEH3 evaluation module is ideal for easily evaluating the opportunity to implement light energy harvesting for indoor IoT products," said Geoffroy Gosset, CEO of e-peas.

Features of Epishine/CAP-XX/e-peas Indoor LEH3 Evaluation Module:

- •81 x 71.5 x 3.8mm
- •Belectable output voltage of 1.8V to 3.3V in 0.1V steps
- Up to 80mA output current

- Bor use indoors
- •Includes a 6-cell 50 x 50mm module
- •Bupercapacitor stores energy to directly power devices

More information and to order the evaluation module: <a href="https://www.cap-xx.com/eval-module-webinar/">https://www.cap-xx.com/eval-module-webinar/</a>

## About CAP-XX

CAP-XX (LSE:CPX) is a world leader in the design and manufacture of small, very thin supercapacitors. The company's ultra-thin prismatic supercapacitors are ideal for space-constrained electronics applications where small energy storage device size and thickness are important. The unique feature of CAP-XX supercapacitors is their very high-power density and high-energy storage



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capacity in space-efficient thin prismatic and compact cylindrical packages. For more information about CAP-XX, visit <a href="https://www.cap-xx.com/">https://www.cap-xx.com/</a> or email sales@cap-xx.com.

## About Epishine

Epishine's business is based on pioneering manufacturing breakthroughs within printed organic solar technology. The company has developed disruptive process steps that provide a unique scalability in terms of manufacturing plus industry-leading low light efficiency. Its roll-to-roll printed organic photocells are optimized for low light conditions and are easily integrated into wireless products. These photocells can be used instead of batteries, which would need to be replaced periodically. The company was founded back in 2016, and has just over 20 employees. Its headquarters in Linköping, Sweden.

https://www.epishine.com

## About e-peas

e-peas develops and markets disruptive ultra-low power semiconductor technology. This enables industrial and IoT wireless product designers to substantially extend battery lifespans and eliminate the heavy call-out costs of replacing batteries, without in any way compromising on reliability. Relying on 15 years of research and patented intellectual property, the company's products increase the amount of harvested energy and drastically reduce the energy consumption of all power consuming blocks within wireless sensor nodes. Headquartered in Mont-Saint-Guibert, Belgium, with additional offices in Switzerland and the USA, e-peas offers a portfolio of energy harvesting power management interface ICs, microcontrollers and sensor

solutions. www.e-peas.com

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