The use of supercapacitors in industry is vastly growing for an array of power related applications ranging from power hold up, energy harvesting, peak pulse current, and battery supplement or replacement applications. Over the course of the next four years, the market for supercapacitors, or otherwise known as electric double-layer capacitors, is expected to more than double in value. KYOCERA AVX is dedicated to advancing new levels of reliability, temperature performance, and increased working voltages of supercapacitors through R&D, licensing agreements, and acquisitions.

The new High Reliability SCM Series from KYOCERA AVX are plastic, epoxy-filled supercapacitor modules featuring high reliability when used in elevated temperatures and/or high humidity conditions. The plastic, epoxy-filled housing technology of the parts block moisture ingress resulting in double (and longer) lifetime performance over standard SCM Series product under normal conditions, and industry leading performance at temperatures above 65°C and high humidity. These high reliability supercapacitor modules offer excellent pulse power handling characteristics based on the combination of very high capacitance and very low ESR. Used by themselves or in conjunction with primary or secondary batteries, they provide extended back up time, longer battery life, and provide instantaneous power pulses as needed. These modules offer great solutions to hold up, energy harvesting, pulse power applications, and battery replacement.

TARGET APPLICATIONS:

- Smart Metering
- Handhelds / Wireless Devices
- Scanners
- Telemetry / Data Capture
- Dying Gasp / Power Hold Up
- Sensoring
- UPS / Industrial

4,000 hours of Capacitance vs. Time, and ESR vs. Time data of a 5.0V 0.47F high reliability supercapacitor at 3.9V and 60°C/90% RH. These high rel. parts also pass 1,000+ hours of 85°C/85% RH.