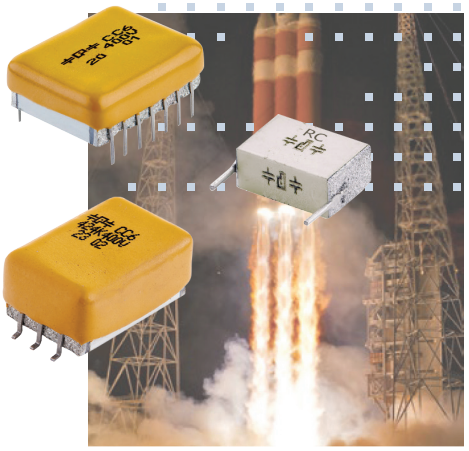
# Lightweight Multilayer Polymer (MLP) Film Capacitors: High Reliability for LEO and SmallSat Missions

## Cost-Effective, Stable, Robust Performance with Significant SWaP Advantages

Quantic™ Paktron's Angstor® and Capstick® Multilayer Polymer (MLP) stacked film capacitors deliver superior performance and significant size, weight, and power (SWaP) savings for demanding space applications. These capacitors offer exceptional reliability and are ideal for projects prioritizing performance, cost and efficiency in challenging environments.



Our components are rigorously tested to meet stringent military standards, ensuring robust operation even under extreme conditions. For space applications not bound by strict NASA or ESA standards, Quantic™ Paktron's film capacitors offer a high-performance, cost-effective alternative that doesn't compromise on quality or reliability.

### Key Advantages

**Lightweight Design:** 25% lighter than equivalent MLCCs, minimizing satellite weight and launch costs.

**Wide Operating Temperature Range:** -55°C to 125°C ensures reliable operation across diverse space environments.

**Exceptional Stability:** Maintains stable performance under varying voltage, temperature, and mechanical stress conditions. Minimal capacitance change is observed over time and under DC bias.

**Ultra-Low ESR/ESL:** Ensures optimal circuit performance.

**High Ripple Current Capability:** Industry-leading ratings.

**Rugged Construction:** Designed to withstand the harsh conditions of space.

**Versatile Voltage Ranges:** Available in 50-1000VDC and 630-1200VDC options.

**Wide Capacitance Range:** 0.1µF to 20µF

**Proven Reliability:** Meets or exceeds MIL-STD-202 requirements for shock, vibration, solderability, terminal strength, resistance to solvents, resistance to solder heat, moisture resistance, and operational life. NEPP tested.

### Space Applications

- CubeSats
- SmallSats
- Suborbital missions
- Commercial space projects
- Low Earth Orbit (LEO) missions
- Research Payloads

NEPP NASA Electronic Parts and Packaging Program

Quantic® Paktron is one of the oldest capacitor manufacturers in the U S., a technological leader in multilayer polymer film (MLP) capacitors. Its innovative portfolio addresses mission-critical, "cannot-fail" performance in demanding markets from automotive and commercial to military, space, and telecom. Its branded capacitor products include Capstick® Capacitor (lead-framecapacitor), Surfilm® Capacitor (surfacemountchip capacitor), Quencharc® Capacitor (RC networks nubber capacitor), and the Angstor® Capacitor line.

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