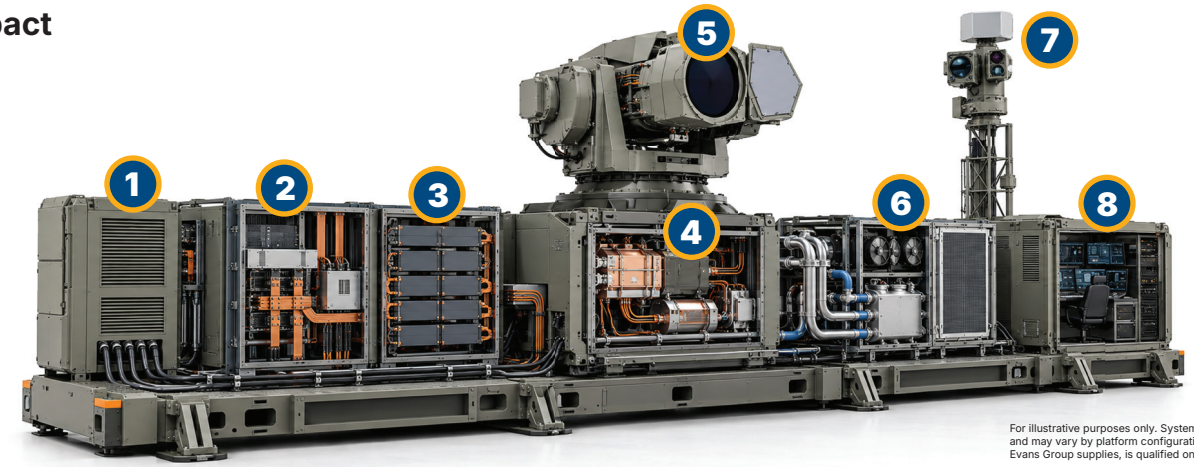
Where Capacitors Impact

Directed Energy Systems



Evans GROUP

Power.
Precision.
Mission Life.

Technology Key

Evans: Hybrid Wet Tantalum

Paktron: Multilayer Polymer Film (stacked)

UTC: High-reliability Ceramic

Eulex: RF & High-frequency Ceramic

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For illustrative purposes only. System configurations and applications vary. Subsystem locations shown are representative and may vary by platform configuration. Product placement identifies potential areas of applicability and does not imply that Evans Group supplies, is qualified on, or is installed on every platform or subsystem shown.

1. Prime Power & Input Conditioning

CAPACITOR FUNCTIONS

- AC/DC input filtering
- Generator/grid bus stabilization
- Rectifier-output filtering
- EMI/RFI suppression
- Inrush and surge control



BEST FIT TECHNOLOGIES

Evans: Compact bulk energy storage for critical prime-power controls

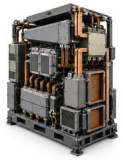
Paktron: Self-healing construction with high ripple-current ratings, resistance to shock and vibration

UTC: High-frequency decoupling and filtering for input electronics

2. Power Conversion & Distribution

CAPACITOR FUNCTIONS

- High-power DC/DC filtering
- Primary/secondary bus decoupling
- DC-link ripple suppression
- Point-of-load stabilization
- Switching-transient control



BEST FIT TECHNOLOGIES

Evans: High-density hold-up and transient energy for critical power buses

Paktron: High ripple-current ratings and stable capacitance under DC bias for power-bus filtering

UTC: Low-ESL bypass, decoupling, and high-frequency filtering

3. Energy Storage & Pulse Power

CAPACITOR FUNCTIONS

- Bulk energy accumulation
- Peak-power delivery
- Voltage-droop control
- Pulse repetition support
- Ride-through and hold-up



BEST FIT TECHNOLOGIES

Evans: High energy and high power density, with low ESR to minimize losses

Paktron: Filtering for active PFC and SMPS applications

UTC: High-voltage pulse-energy storage and local low-inductance support

4. Directed-Energy Source & Driver

CAPACITOR FUNCTIONS

- Source-driver pulse support
- Modulator DC-link filtering
- RF/optical driver decoupling
- Fast-switching transient control
- Waveform and bias stabilization



BEST FIT TECHNOLOGIES

Evans: High-current pulse and bulk energy storage for source drivers

Paktron: High-performance film capacitor for power conversion

UTC: Low-ESL decoupling near switching and driver electronics

Eulex: Ultra-low-ESL coupling and high-frequency RF-path control

5. Beam Control, Steering & Stabilization

CAPACITOR FUNCTIONS

- Servo and actuator filtering
- Position-sensor decoupling
- Control-loop stabilization
- Precision timing support
- RF/optical path electronics filtering



BEST FIT TECHNOLOGIES

Evans: Peak-power and hold-up support for steering and stabilization loads

Paktron: Motor-drive applications, thermal stability for timing applications

UTC: Precision low-ESL filtering for sensors and control electronics

Eulex: High-frequency bypass and RF steering-path coupling

6. Thermal Management & Cooling

CAPACITOR FUNCTIONS

- Pump and fan-drive filtering
- Coolant-control decoupling
- Motor transient suppression
- Sensor-rail filtering
- Auxiliary-power stabilization



BEST FIT TECHNOLOGIES

Evans: Hold-up support for critical cooling and protection functions

Paktron: DC-link and BLDC-drive applications

UTC: Low-ESL decoupling for thermal sensors and control electronics

7. Sensing, Tracking & Fire Control

CAPACITOR FUNCTIONS

- EO/IR sensor-rail filtering
- Radar/lidar pulse support
- Receiver/LNA decoupling
- Tracking-processor decoupling
- RF matching and DC blocking



BEST FIT TECHNOLOGIES

Evans: Compact energy storage and low ESR for tracking and sensing electronics

Paktron: Power-stage filtering, low ESL/ESR, thermal stability

UTC: Low-ESL decoupling for sensor and RF electronics

Eulex: Low-loss matching, coupling, DC blocking, and RF bypass

8. Control, Timing, Safety & Diagnostics

CAPACITOR FUNCTIONS

- Processor/FPGA decoupling
- Trigger and timing stability
- Safety-interlock hold-up
- Diagnostics-rail filtering
- Data-interface noise control



BEST FIT TECHNOLOGIES

Evans: Backup and hold-up for supervisory and safe-state functions

Paktron: High thermal stability for timing, self-healing technology

UTC: Low-ESL decoupling for processors, sensors, and timing

Eulex: High-frequency bypass and trigger/signal coupling

THE EVANS GROUP ADVANTAGE

High Energy Density
Compact stored energy and hold-up capability for size- and mass-constrained systems.

High Pulse Power
Low-ESR technologies support rapid delivery and repetitive high-power loads.

Precision & RF Performance
Low-ESL filtering, matching, and coupling support fast, precise signal paths.

Rugged Reliability
Capacitor technologies for high voltage, thermal cycling, vibration, and long life.