

Where Capacitors Impact

# Fuze & Munitions Systems

**Evans** GROUP  
Safety.  
Precision.  
Pulse Energy.



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. Electronic Fuze & Timing



### CAPACITOR FUNCTIONS

- Timing and event sequencing
- Arming-delay control
- Precision reference filtering
- Processor/logic decoupling
- Power hold-up
- Shock and vibration stability

### BEST FIT TECHNOLOGIES

**Evans:** Rugged compact energy storage for critical fuze logic and timing circuits

**Paktron:** Low-ESR filtering and transient suppression for fuze power

**UTC:** Low-ESL decoupling and precision filtering for timing and sensing



## 2. Safety, Arming & ESAD Control



### CAPACITOR FUNCTIONS

- Safe-and-arm logic filtering
- Interlock power stability
- High-voltage energy storage
- Controlled charge/discharge
- Transient suppression
- Fault-state hold-up

### BEST FIT TECHNOLOGIES

**Evans:** Rugged, power-dense energy storage and hold-up for electronic safe-and-arm control

**Paktron:** Snubbing, filtering, and dv/dt control in charging and protection circuits

**UTC:** High-voltage pulse capacitors for ESAD and LEEFI firing-module energy storage and pulse delivery



## 3. Target Sensing & Proximity Detection



### CAPACITOR FUNCTIONS

- RF/EO sensor conditioning
- RF matching and tuning
- DC blocking and coupling
- High-frequency bypass
- Sensor-power filtering
- Signal-path protection

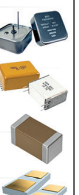
### BEST FIT TECHNOLOGIES

**Evans:** Compact energy storage and pulse support for sensing electronics; broad range of capacitance ratings

**Paktron:** Low-ESR sensor-power filtering and switching-noise suppression

**UTC:** Low-ESL decoupling and high-voltage sensor-interface support

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



## 4. Initiators & Detonator Interfaces



### CAPACITOR FUNCTIONS

- Initiation-energy storage
- Fast controlled discharge
- High-voltage operation
- Low-inductance delivery
- Bleed/discharge control
- Interface transient protection

### BEST FIT TECHNOLOGIES

**Evans:** High-power energy storage and rapid pulse delivery for initiation circuits

**Paktron:** High-dv/dt pulse support and snubbing around firing switches

**UTC:** High-voltage pulse-energy ceramics for initiator and detonator modules



## 5. Firing-Energy Storage & Pulse Delivery



### CAPACITOR FUNCTIONS

- Firing-energy accumulation
- Single/multi-pulse delivery
- Fast discharge response
- High-current support
- Voltage-droop control
- Temperature stability

### BEST FIT TECHNOLOGIES

**Evans:** Power-dense storage for high-energy pulse delivery and voltage support

**Paktron:** Low-ESR, high-dv/dt film capacitors for pulse shaping and snubbing

**UTC:** Pulse-energy ceramics for compact single- and multi-pulse firing modules



## 6. Guided Projectile Control & Actuation



### CAPACITOR FUNCTIONS

- Guidance-processor decoupling
- Course-correction actuation
- Motor/solenoid-drive filtering
- Pulse-current support
- Position-sensor filtering
- High-g survivability

### BEST FIT TECHNOLOGIES

**Evans:** Energy storage and pulse support for compact actuator loads

**Paktron:** Motor-drive filtering, snubbing, and ripple suppression

**UTC:** Low-ESL decoupling and filtering for guidance and actuator controls

**Eulex:** RF bypass and filtering for select guided-projectile sensing links



## 7. Reserve Power, Conversion & Hold-Up



### CAPACITOR FUNCTIONS

- Reserve-battery filtering
- DC/DC converter filtering
- Bulk energy storage
- Power hold-up
- Ripple suppression
- Inrush/load-step support

### BEST FIT TECHNOLOGIES

**Evans:** Power-dense energy storage and hold-up for compact munition electronics

**Paktron:** Low-ESR input/output filtering and DC-bus stabilization

**UTC:** Point-of-load decoupling and high-frequency converter filtering



## 8. Programming, Telemetry & Health Monitoring



### CAPACITOR FUNCTIONS

- Pre-launch programming
- Telemetry-interface filtering
- RF coupling and matching
- Built-in-test stability
- Sensor/reference filtering
- Status-memory hold-up

### BEST FIT TECHNOLOGIES

**Evans:** Backup and hold-up power for critical status and control electronics

**Paktron:** Low-ESR filtering for telemetry and programming power

**UTC:** Low-ESL decoupling and interface filtering

**Eulex:** RF matching, coupling, DC blocking, and high-frequency filtering



## THE EVANS GROUP ADVANTAGE



**Compact Energy Storage**  
High energy density;  
significant SWaP savings



**Controlled Pulse Delivery**  
Low inductance/low ESR  
for precise firing functions



**Extreme Environments**  
Rugged solutions from  
-55°C to +250°C, high-g  
shock and vibration



**High Reliability**  
Stable, reliable performance  
for mission-critical safety  
and initiation electronics