

Where Capacitors Impact

Radar Systems

Evans GROUP Power Integrity.
RF Performance.
Mission Ready.

1. RF Front End



CAPACITOR FUNCTIONS

- T/R Modules (MMIC / GaN)
- Limiters and Protectors
- Phase Shifters
- Filters and Diplexers

BEST FIT TECHNOLOGIES

Evans: Power-dense bulk energy storage and power hold-up for high-power RF electronics

Paktron: Low-ESR power-supply filtering, ripple suppression, and switching-noise reduction in RF modules

UTC: High-density and high-Q ceramics for filtering, decoupling, timing stability, and power handling

Eulex: Low-loss RF matching, coupling, DC blocking, and filtering for RF front-end signal paths



2. Exciter & Waveform Generation



CAPACITOR FUNCTIONS

- Pulse Generators
- Modulators
- Oscillators / Ref CLK
- Frequency Synthesizers

BEST FIT TECHNOLOGIES

Evans: Bulk energy storage for pulse delivery, voltage support, and minimize voltage droop

Paktron: High-dv/dt for pulse support, snubbing, ripple suppression, and switching-noise reduction

UTC: Timing stability, decoupling, and filtering

Eulex: RF coupling, filtering and low-loss signal integrity for oscillators and frequency-generation paths.



5. Power Conversion & Distribution



CAPACITOR FUNCTIONS

- AC-DC Converters
- DC-DC Converters
- POL Regulators
- Power Distribution

BEST FIT TECHNOLOGIES

Evans: Bulk energy storage and minimize voltage droop

Paktron: Low-ESR, high-ripple for converter output filtering, ripple suppression, and DC-bus stabilization

UTC: Converter filtering, decoupling, and power handling

Eulex: High-frequency bypass and switching-noise filtering for power-conversion and distribution electronics



3. Signal Processing



CAPACITOR FUNCTIONS

- ADC / Receivers
- Digital Signal Processing
- Beamforming
- Data Converters

BEST FIT TECHNOLOGIES

Evans: Power hold-up and power-supply stabilization

Paktron: Low-ESR for power-supply filtering, ripple suppression, and stable power delivery to digital processing circuits

UTC: Low-noise, high-frequency decoupling and precision filtering for converters, processors and beamforming electronics.

Eulex: Low-ESL bypass and high-frequency filtering for converters, processors, and beamforming electronics



6. System Control & I/O



CAPACITOR FUNCTIONS

- Control Processor
- FPGA / Logic
- Interfaces and I/O
- Timing and Synchronization

BEST FIT TECHNOLOGIES

Evans: Backup and hold-up energy for processors, logic and fault-tolerant control loads.

Paktron: Low-ESR for digital and I/O rail filtering, ripple suppression, and switching-noise reduction

UTC: Decoupling, interface-noise filtering, and reference-circuit stability

Eulex: Low-ESL bypass and high-frequency filtering for timing, synchronization, and high-speed interface circuits



4. Antenna & T/R Switching



CAPACITOR FUNCTIONS

- Beam Steering
- T/R Switches
- Antenna Control
- Solid-State Relays

BEST FIT TECHNOLOGIES

Evans: Power hold-up, bulk energy and ride-through support for switching and antenna-control loads.

Paktron: Drive filtering, snubbing, and switching-transient suppression

UTC: High-Q and high voltage for decoupling, control and beam-steering circuits

Eulex: Low-loss RF coupling, DC blocking, filtering, and impedance matching for antenna and switching paths



THE EVANS GROUP ADVANTAGE

 Extreme Environment Long range detection and high resolution	 High Power Handling Pulsed power and high current	 High Reliability 24/7 operation in harsh environments
 Wide Temperature -55°C to +250°C operation	 Low ESR / ESL Maximum efficiency and minimal losses	 Built to Endure Shock, vibration, EMI and salt fog resistant