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# **SWaP Optimized Capacitors for Mission-Critical Applications**



Quantic Evans hybrid wet tantalum capacitors are the most power dense in the industry, providing significant SWaP savings when compared to traditional capacitor technologies. Their trusted and proven products are qualified and in service with all Tier 1 aerospace and defense contractors.

- Voltage ranges from 10V 125V (higher for Capacitor Bank Assemblies)
- Ultra-low ESR
- Withstands extreme temperature, shock, and vibration environments
- Unlimited Shelf Life
- Space Grade (routinely screened and qualified to NASA-INST 002); ESA approved
- ECCN EAR99

## **Featured Products**



#### **TDB Series**

- 1.0" x 1.0" square base [5 heights]
- Voltage Range: 10V-125V
- Cap Range: 750uF 150,000uF



## **THQ Series**

- 1.4" round base (5 heights)
- Voltage Range: 10V-125V
- Cap Range: 1.1mF 200mF
- >over 20 years of proven field service
- DLA 04001, DLA 04003
   DLA 04004, DLA 09022



#### **Capattery series**

- Double layer carbon capacitor technology
- Voltage range: 5.5V 11V
- Capacitance range: 0.47F 1F
- High shock options available



#### **TDD Series**

- 1.4" x 1.4" square base [6 heights]
- Voltage Range: 10V-125V
- Cap Range: 1.5mF 300mF
- Ultra low ESR



## THQA2/M2/S2 Series

- 0.6" round base
- M2 mounting case option
- S2 High Shock Option
- Voltage Range: 10V-125V
- Cap Range: 215uF 10,000uF
- DLA 04005



#### Modules

- Configurable with any Quantic Evans capacitor
- Available in 2 8 capacitor assemblies
- Can choose connector, wiring, orien tation, and more



## **TDE Series**

- 1.4" x 1.4" square base [6 heights]
- Voltage Range: 60V-110V
- Cap Range: 2.2mF 25mF
- Ultra low ESR



#### **HyCap Series**

- Axial Form Factor
- 3 case sizes T1, T2, T4
- Voltage Range: 10V-150V
- Cap Range: 2uF 2700uF
  High temp 200°C options available
- DLA 10004, DLA 93026







- Radar (T/R module)
- Power hold-up (MIL-STD-704 / D0 160)
- Propulsion in Space Oil & Gas
- Directed Energy
  - Electromagnetic pulse
  - Pulsed laser
  - High power microwave Electric



# **Design**

The operating principal behind Quantic Evans hybrid technology lies within the combination of a high voltage bearing Tantalum Pentoxide (Ta205) anode and a Ruthenium Oxide (Ru02) cathode. When paired, this combination yields the most power dense capacitor in the industry. Quantic Evans capacitors come in a rugged, hermetically sealed, tantalum case and have an unlimited shelf life. Their robust design allows for extreme duty cycles and can withstand high currents, high temperature, and high shock/vibration environments. They are well suited for applications from undersea to deep space and everything in between.



# **SWaP Optimized**

Quantic Evans capacitors are 1/10th the size of traditional wet tantalum capacitors and ¼ the size of the industry's leading aluminum electrolytic capacitor. They also provide high capacitance ratings, long operating life, low ESR, and high current handling capability in a hermetically sealed Hi-Rel package.



# **Testing**

Quantic Evans is certified to IS09001 and AS9100. Our product is 100% serialized, Inspected, characterized and fully traceable. Every capacitor that is built undergoes over 48 hours of extensive testing which has given it its unmatched reputation for quality and reliability. These capacitors have been proven in over 20 years of field service and numerous customer application qualification tests for use in Military and Aerospace Systems.

