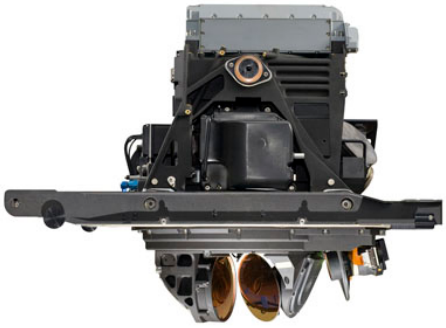
Advanced Capacitors for Demanding Applications

For High Power LASER Applications

High Power solid state lasers require very high current pulse drivers, able to maintain voltage with minimum droop, throughout the pulse. EVANSCAPS, Tantalum Hybrid Capacitors from Evans Capacitor Company provide bulk energy storage and very low ESR to enable higher power LASER targeting and LASER weapons.

EVANSCAPS in THQ, THS, and TDD styles are providing high current pulse power for both ground and airborne LASER targeting systems. The TDD series capacitors with high capacitance and very low ESR will support the highest currents with minimal voltage droop. The TDD series encompasses a unique internal construction that greatly reduces ESR, providing greater efficiency, generate less heat, and are



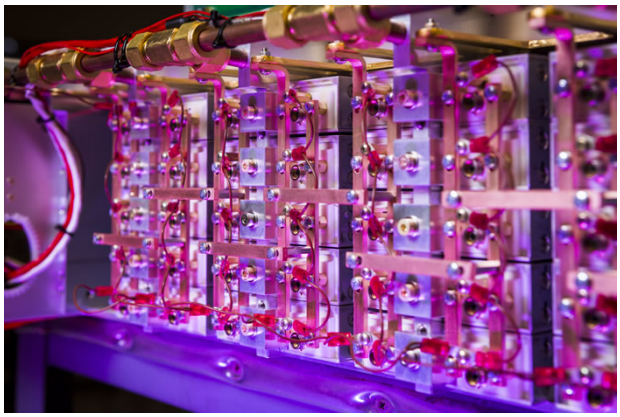
capable of very high peak discharge currents. The low inductance design facilitates a very short rise time and excellent frequency response. Lower ESR at -40C provides improved performance over the entire required temperature range.

EVANSCAPS unique chemistry and construction provides the highest available energy density for power interruption back up for avionics or subsystems. The low ESR and power density also provide high current pulse power for LASER drivers or phased array radars. EVANSCAPS save space, weight and power (SWAP) over other capacitor technologies. EVANSCAPS are available in a very wide range of ratings in voltages from 10V to 125V. They are not cycle limited and totally hermetic.

TDD2080602
80V * 6,000µF * 0.027Ω * <16cc

For very high power applications in LASER weapons and research, Banks of Evans TDD series capacitors have proven state of the art performance

At Lawrence Livermore National Laboratory, development of the HAPLS high power laser required high power in for the pulser energy storage. Using TDD3 Evanscaps in banks provided the increase in performance necessary to achieve performance goals….According to LLNL, "The capacitors deserve special note, as they are a major enabling technology that reduces the volume of the capacitor bank by at least a factor of three while providing better ripple current characteristics and superior cooling compared to standard electrolytics. The use of these capacitors allows the incorporation of 100J of energy storage in approximately 3.5 cubic inches."



HAPLS LASER
Pulse Diode bank assembly

Evans Capacitor manufactures high energy density capacitors for demanding defense and aerospace applications, including phased array radar, laser targeting and power hold up, where size, weight, and reliability are the major considerations. Evans' production facility in East Providence, RI, follows stringent guidelines for quality and performance and is ISO 9001:2008 and AS9100 certified. Hybrid Capacitors are commodity dual use EAR-99 for export purposes. Evans is ITAR registered.

For more information please see:
http://www.evanscap.com/hybrid.htm
http://www.evanscap.com/TDD_product_page.html

For questions or to request a quote…
Email us at: info@evanscap.com
Or call (401) 435-3555

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