



**Radar Transmitters**



**Advanced RF Systems**



**Power Converters**

## **PowerMod™**

### **Compact Power Supply**

#### **System at a Glance**

##### **DTI's Compact Power Supply provides:**

- **Extreme Power Density**  
A ten-fold increase in power density over DTI's 200 kW HVPS.
- **Precise Voltage Regulation**  
For consistent performance.
- **High Efficiency**  
For lower energy usage and reduced operating costs.
- **Integrated Fault Protection**  
For minimal system disruption.
- **Flexible Power Delivery**  
DC power or fast capacitor charging at high efficiency.

DTI's PowerMod™ high voltage power supplies (HVPS) offer advanced high voltage power conditioning for demanding research and manufacturing applications. With high efficiencies and a small footprint, DTI's standard HVPS combines superior performance with significantly reduced facility and utility costs.

DTI's new Compact Power Supply (CPS) boasts the same high voltage power conditioning as DTI's 200 kW HVPS, and achieves a ten-fold increase in power density. This drastic reduction in physical footprint makes the CPS very attractive for applications where space and weight command high premiums (sidebar).

The 300 kW CPS continues DTI's commitment to safety and reliability, offering full internal overcurrent, overvoltage, and fault protection. All control systems are fully isolated from the EM effects of high voltage switching via noise-immune fiber-optic interfaces, and component inputs and outputs are fully protected against overvoltages, fast transients, and short circuits.



**DTI's Compact Power Supply** provides 300 kW of average power in an extremely small frame without sacrificing the performance or reliability of DTI's standard high voltage solid-state power supplies.

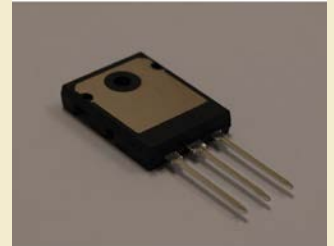


Offering power levels from 100 kW to 300 kW, the DTI PowerMod™ Compact Power Supply can be configured in multiple units and operated in parallel for higher power requirements. Depending upon configuration and quantity, they can produce high voltage DC power for as low as 50 cents per watt.

DTI's 300 kW CPS was developed to power the US Navy Electromagnetic Railgun (EMRG) energy storage system under the Navy's Small Business Innovation Research Program (SBIR). Custom configurations are available for DC power or fast capacitor charging.



DTI's standard 200 kW Power Supply (left) and 300 kW Compact Power Supply (right) with 10 times greater power density.



**Highly efficient IGBTs** see extensive use in many DTI designs, in both series and parallel configurations, to precisely control current flow power delivery.



**Located in Greater Boston,** DTI employs a dynamic team of electrical, mechanical, and aeronautical engineers, physicists, and system analysts with decades of experience designing and developing multi-megawatt solid-state power supplies, modulators, and advanced military radar systems.

