## SUCCESS STORY



## **Composite Shell Filtered Connectors for Aircraft Motor Controls**

Spectrum Control reduces aircraft weight by replacing metal shells with composite shells in filtered connectors

Weight reduction is a critical factor in aircraft. Excessive weight reduces flight performance, impacting stability and increasing fuel consumption and carbon emissions. There's a solution. Spectrum Control's composite shell connectors replace traditional metal connector shells for substantial weight reduction while maintaining the form, fit, and function of the original connector shell.

## Why Aerospace Companies Choose Spectrum Control

For greater design flexibility, Spectrum Control's composite shell connectors feature shells fabricated from high-grade thermoplastic, making it ideal for applications where mass is an important element in construction. These rugged, durable, custom mechanical configurations can be provided without the usual tooling charges.

Spectrum Control's connector offerings are manufactured in the USA. Components, including capacitors and shells, are fabricated in the State College, PA facility, providing customers high-quality parts at very competitive prices, with the industry's shortest lead times.

Composite shell versions of any of Spectrum Control's circular connector design offerings are available.

In addition, Spectrum Control can accommodate quick-turn schedules for prototyping by adding either a planar or tubular ceramic capacitor filtering to the rear of a standard connector, for both military and commercial aerospace applications.



Composite shell connectors in MIL-DTL-38999 Series III available EMI filtered or custom unfiltered.



Single-seat, single-engine, all-weather multi-role combat aircraft for both air superiority and strike missions.

## **The Spectrum Control Difference**

Spectrum Control's connectors offer design engineers an effective filtering device that reduces the amount of real estate required within a product enclosure. Custom designed parts can be built to meet your mechanical and environmental specifications.

Spectrum Control is an industry leader in the design and manufacture of high-reliability specialty connectors. We offer a premium line of compact and extended shell filtered connectors, and provide a wide range of design flexibility. Other notable features include:

- Tubular and planar style filtered arrays in Pi, LC, T, and C circuits with TVX protection available.
- Reliability ensured through 100% testing of each position for critical electrical parameters.