Today’s aerospace and defense markets are changing to meet a new generation of global requirements. Highly performing products must operate in extreme environments – while design improvements add efficiency and flexibility. New solutions are developed daily to meet those challenges.

Moog offers unique design and manufacturing capabilities in motion, fiber optic and electronic components to the aerospace and defense segments. With a legacy of successful product design and customer support, Moog leads the way in developing innovative technologies for a wide range of applications and programs. Leveraging our expertise in these key areas, Moog provides custom products and solutions, as well as commercial off-the-shelf models that minimize developmental expenditures and delivery times.

Challenges

- Higher bandwidth requirements for transferring digital and analog data and video
- Compact packaging and high performance torque to density ratio
- Expanding needs in communications, satellite applications and homeland security

Applications

Moog Components Group products are used on numerous programs and platforms:

- **Armored Vehicle / Remote Weapon Station:** Bradley, Abrams, Stryker, ASV, CV-90, Challenger, CROWS, Mini-Samson
- **Missile and Air Defense:** AMRAAM, Javelin, Standard Missile, Patriot
- **Electro-Optical / Infra-Red (EO / IR) Advanced Targeting Pod:** MTS
- **Unmanned Aircraft System (UAS):** Shadow, Hunter, Predator, KUAV, Gray Eagle
- **Radar / Satcom:** EQ-36, G / ATOR, Sentinel, SeaView, MEADS
- **Commercial and Military Aircraft / De-ice:** S-92, AH-64A-D Apache, Black Hawk and SeaHawk, V-22 Osprey, EH-101, AW-139

Worldwide Service

Moog products are serviced by international sales teams, customer support representatives and manufacturing operations in 26 countries facilitating multi-national opportunities. When a customer needs tailored support, program management can work as an integral part of the development team. Moog has a strong commitment to quality, support and on-time delivery.
Learn more about Moog product portfolio

Actuators
Servo and utility linear and rotary actuators are available. Our actuators perform in high MTBF aircraft applications, including aircraft and UAS control surfaces, autopilots and gimbaled assemblies. Integral analog and digital servo amplifiers are available with clutch, break and gearing options.

Air Moving
By combining expertise in thermal management with Moog motor technology, we have expanded options for solving difficult thermal, airflow, acoustic and efficiency problems. We offer standard and tailored airflow products that are designed for high efficiency thermal management. Heat exchangers are available when sealed enclosures are required.

Alternators
A permanent magnet alternator is a power generating device that produces a sinusoidal output when a mechanical rotation to its hub or shaft is applied. Output power ratings to 25 KW are available.

Fiber Optic Devices
Fiber Optic Connectors
Moog designs and manufactures high speed electronic and electro-optic components for harsh environment networking equipment applications. Products include optical switches, media converters and transceivers.

Media Converters and Modems
The Fiber Optic Modem (FOM) provides electrical to optical conversion of electronic communication and data signals for transmission using tactical fiber optic cable assemblies. The FOM simultaneously receives incoming optical signals and converts them back to the original electronic signal allowing for full duplex transmission. Together with the tactical fiber optic cables, the FOM provides a rugged, secure, and easy deployable optical link.

Fiber Optic Switches
Optical switches are available in 1 X 2 and 2 X 2 configurations. Custom and standard designs are offered.

Fiber Optic Rotary Joints
Fiber Optic Rotary Joints (FORJ) are to optical signals what electrical slip rings are to electrical signals, a means to pass signals across rotating interfaces, particularly when transmitting large amounts of data. FORJs maintain the advantages of fiber end to end.

Motors
Housed and direct drive servo and torque DC motors are available in brush and brushless configurations. High energy permanent magnets and high permeability lamination materials are available for fast servo response and high starting torque applications.

Multiplexers
Multiplexers are designed to provide reliable fiber optic transmission of video and data signals in demanding environments. Both Time Division Multiplexers (TDM) and Wave Division Multiplexers (WDM) designs are available.

Position Sensors
Resolvers
Moog brush and brushless resolvers are economical and highly accurate. These motion feedback sensors can be used to provide velocity and position information for closed-loop electronic control, as well as brushless DC motor commutation.

Rotary Variable Differential Transformer (RVDT)
RVDT position sensors provide repeatable position sensing with infinite resolution. Housed and frameless versions are available. These models provide high reliability and accuracy in a robust, compact design.

Slip Rings
Slip rings are used in systems that require unrestrained, continuous rotation while transmitting power and data from a stationary device to a rotating structure. High bandwidth capability includes Ethernet, HD and other industry standard formats.

Solenoids
Moog designs solenoid solutions for numerous aerospace systems. Our solenoids survive harsh environments and are industry standard for armament equipment and missile launcher applications.

Higher Level Solutions
In addition, Moog uses its component and sub-system integration expertise to offer Higher Level Solutions for the aerospace and defense markets. We provide higher level solutions for flight control, radar, remote weapon station and electro-optical payload system requirements.

To learn more about how the Moog solution can meet your aerospace and defense challenge, visit us at www.moog.com

Specification and information are subject to change without prior notice.
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