

Amphenol Aerospace

SPACE SOLUTIONS

A new golden age in space travel is starting.

Humanity is preparing to return to the Moon in the coming years with aspirations to visit Mars.

Amphenol Aerospace offers the interconnect technology needed to propel the next era of space exploration.



NEW TECHNOLOGIES

Series Five



An innovation of MIL-DTL-38999 Series III, Series Five is up to 20% smaller and 50% lighter than its Series III counterpart. Available in multiple configurations and with higher voltage capabilities.

High/Low Temperature

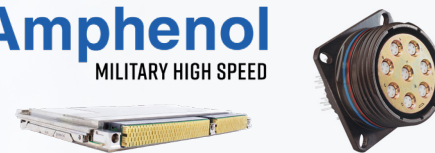


High Temperature Series Five connectors can withstand 45 minutes at 2,200 °F (1,204 °C), up to 24 hours at 572 °F (300 °C) and 500 °F (260 °C) continuous duty. Cryo-Seal Hermetic connectors can maintain a contact-to-contact seal in temperatures as low as -319 °F (-195° C).

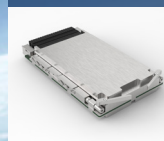


HIGH SPEED CAPABILITIES

Amphenol MILITARY HIGH SPEED



Amphenol Military High Speed specializes in the design and manufacture of ruggedized integrated solutions for all major high-speed protocols for harsh environment military and aerospace applications.



Ethernet Switches

Amphenol Ethernet Switches are available in multiple form factors including 3U and 6U VPX with hundreds of available channels.



Media Converters

Amphenol media converters are built to bridge every technological gap from protocol conversion, copper-to-fiber, data concentration, and more.



High Speed Contacts

Amphenol's high speed contacts are optimized for high-frequency and high-speed data transmission in rugged applications.



High Density

Amphenol offers a selection of connectors with high density arrangements, including the Centaur Series, which combines a high-speed D38999 connector and cable in one rugged assembly.

SPACE SOLUTIONS



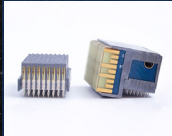
Deep Space 38999

Built to retain a grommet-to-wire and contact-to-contact seal in temperatures below -85 °F (-65 °C). Inserts cycle tested between -319° F (-195 °C) to 392 °F (200 °C).



Air-Tight Lightweight Hermetic

Meets a 1x10⁻⁷cc helium per second leak rate and maintains an operating temperature of -85 °F (-65 °C) to 392 °F (200 °C) with 35% weight savings across any shell size.



SpaceVPX VITA 78

VITA 78 SpaceVPX connectors leverage OpenVPX architecture and are designed and tested for extreme space environments, extreme temperatures and vibration.



HD38999 High Density

Features 30% more contact density than standard D38999 inserts while utilizing the same dimensions and shell sizes.



Reduced Flange Jam Nut Receptacles

Features a reduced flange design that saves space and weight and reduces footprint when used in PCB applications.



38999 Breakaway Connectors

Features a durable axial pull lanyard for quick-disconnect capabilities.

PRODUCTS

Amphenol Aerospace connectors are offered in a variety of major product categories, including:



Data

Amphenol offers a wide selection of connectors and contacts for meeting harsh environment data and signal demands.



Power

Amphenol Power Solutions are intended to tackle high current and high voltage requirements in any application.



Hybrid

Amphenol connectors can be configured to deliver both power and signal simultaneously.



Circular

Amphenol offers the largest selection of harsh environment circular connectors on the market.



2M

2M is a Micro-Miniature interconnect series optimized for Size, Weight, and Power (SWaP).



Board Level

Amphenol board level solutions provide robust speeds and size and weight savings for embedded systems.

FEATURES

Amphenol Aerospace offers a variety of features and capabilities for space-based systems, including:

Advanced Platings



AP-93:

REACH/RoHS compliant finish that meets 1000 hours of dynamic salt spray, 500 mating cycles, and meets the millivolt drop shell-to-shell conductivity of nickel (Class F). Available on all D38999-style Series III connectors.

MIL-SPEC Innovations



38999 Plus

Go beyond the MIL-SPEC limits with MIL-DTL-38999 style connectors for any space-based application. Options include hermetics, Dualok anti-decoupling connectors, printed circuit board connectors, and more.

Open Architecture



MIL-HD2

The high-density SOSA™ and VITA 91-aligned MIL-HD2 provides 56Gbps PAM4 speeds in a compact 3U form factor with 3-, 4-, and 6-pair configurations available.

EMI/RFI/EMP Shielding



Filter Connectors

Amphenol Filter Connectors provide significant protection against EMI/RFI interference and EMP with a variety of available filter options.