

## **FILTER** solutions

EMI Filter and Transient  
Protection Connectors



MILITARY  
AVIONICS



MILITARY  
VEHICLES



C4i



CIVIL  
AVIONICS



UAV



NAVAL



# FILTER solutions



As a global leader in interconnect technology Amphenol is able to provide an extensive range of standard and customised connectors including EMC and EMP protection for sensitive circuits for a wide range of applications within Military and Civil Aerospace, C4i systems, Vetronics, Industrial and Power Distribution Systems.

The protective circuits and components are encased within the connector housing providing excellent mechanical and environmental protection. A key feature of our planar filter design is the use of compliant clip technology. This protects the ceramic planar array from mechanical stress due to vibration or changes in temperature.

Amphenol provides low-pass filter circuits including L, C, LC, Pi or T as well as more specific configurations of diodes, MOVs and various TVS devices to provide protection against a range of EMP/NEMP/LEMP/HEMP and ESD threats.

Amphenol offer a total in-house design, manufacture and test capability allowing us to provide filtering in all of our circular connector formats including MIL-DTL-38999, MIL-C-26482 and EN2997 with minimal impact on standard dimensions. We can also provide filter protection in our application specific products such as Terrapin and Bulldog.

Filter protection is also available within the full range of Amphenol rectangular connector formats including MIL-DTL-24308 (D-Sub), MIL-DTL-83513 (Micro D), ARINC 400/600, MIL-DTL-83733 and SIM Rack & Panel connectors.



## Manufacturing and Test Capabilities

- Planar, Tubular and Discrete Chip technologies
- L, C, LC, Pi and T Filters
- EMP/NEMP/HEMP/LEMP protection
- Predictive performance capability
- 100% electrical testing using ATE
- Grounded and Feed-through contacts
- Customised Shell Geometry where required
- State of the art manufacturing techniques using multi axis CNC turning and automated carousel machining centres
- Rapid Prototyping
- Vertically integrated Design and Manufacturing
- Injection Moulding
- Carbon steel, stainless steel, titanium, aluminium, aluminium bronze and nickel alloys
- Standards room inspection and full batch control
- Fully accredited to AS9100
- Fully environmentally accredited plating and surface finishing facility
- Professional Engineering design and development
- Circuit Design
- Modelling, verification and simulation software
- In-house tool design and complete manufacturing and assembly capability
- Independently accredited test house facilities for environmental and electrical qualification
- Supply Chain Management
- Project Management

## Typical Markets/ Applications

- Military Aerospace
- Civil Aerospace
- Military Communications
- Vetronics
- Power Distribution
- Missiles/Torpedoes
- Marine and Naval Systems

## Typical Performance Levels

<b>Temperature Shock</b>	MIL-STD-810G, Method 503.5, -55°C to +125°C
<b>Vibration</b>	EN2591-403, 1g <sup>2</sup> /Hz, 50Hz – 2000Hz
<b>Shock</b>	MIL-STD-810G, method 516.6: procedure 1, 20g, 11ms
<b>Humidity</b>	EIA-364-31, Test Method IV
<b>Salt Spray</b>	500 Hours NaCl dependant upon connector finish

Other performance levels are dependent upon the connector style.

# Amphenol<sup>®</sup>

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