

Backplane Assemblies

Amphenol is the leading manufacturer of custom backplane assemblies using high density, ruggedized, board-to-board backplane interconnects. Amphenol backplanes are required to perform in the most demanding environments, such as Army helicopters, Navy and Air Force fighters, C⁴I electronics, missiles, ground vehicles, Navy warships and commercial aircraft.

Requirements met by Amphenol Backplane Assemblies include:

- MIL-A-28870 qualification for assembled backplanes

Amphenol's high technology backplane product offerings include:

- **Electrical Backplanes** - Large panel sizes with high layer counts, and features such as high aspect ratio plating, small diameter plated-through holes, and controlled impedances.
- **Optical Backplanes** - Fiber termination with Multi-Terminal (MT) optical ferrules. Ribbon cable sorting allows programming flexibility; thus rendering the entire system easily upgradeable.
- **Hybrid Optical Backplanes** - Integrated electrical and optical systems in one discreet package for advanced avionics systems requiring high speed optical/digital signal processing.

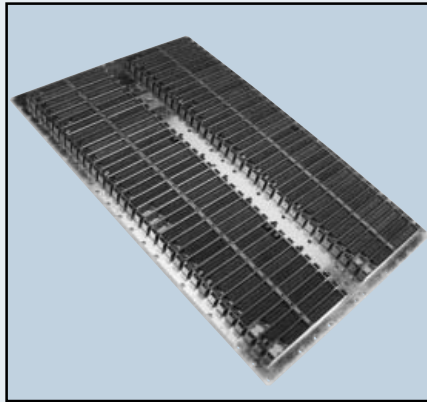
Amphenol Backplane Assemblies - Electrical and Optical

Amphenol Backplane Capabilities include:

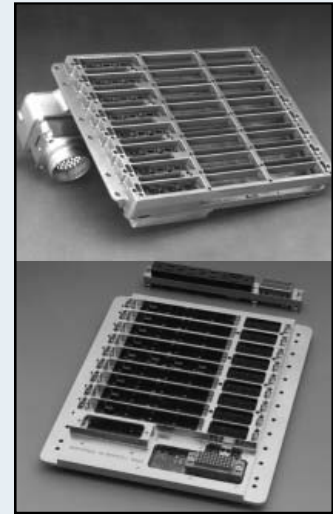
- Concurrent applications engineering support, value added assembly and advanced test capabilities
- Press-fit compliant pin contacts
- Rigid and rigid flex printed wiring boards
- Surface mount and through-hole soldering
- Hybrid electro-optical combinations
- Conformal coating

Amphenol Backplanes are on the following programs:

- F-35 Joint Strike Fighter
- F-22 Raptor
- MIDS Radio
- AH-64 Apache
- RAH-66 Comanche
- THAAD Radar



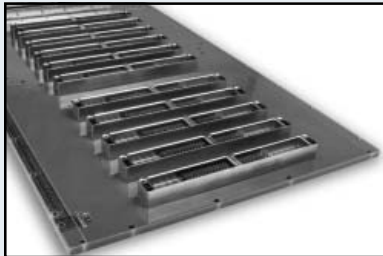
Electrical Backplanes



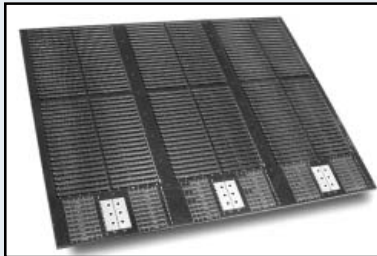
Optical Backplanes

Amphenol Backplanes Incorporate a Wide Range of Interconnects:

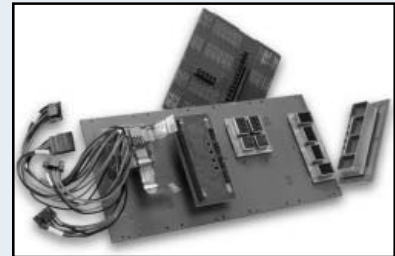
Almost any connector in the market can be integrated into a backplane. SEM-E and custom form factors are available.



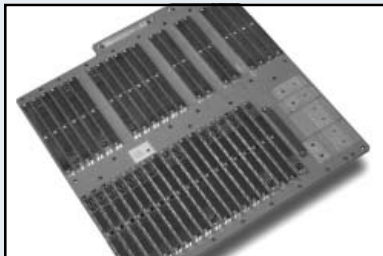
LRM Backplane with MIL-C-55302 Bristle Brush Contacts



Backplane with NAFI Fork and Blade Contacts



Backplane with ARINC



Backplane with UHD Fork and Blade Contacts



Backplane with MIL-DTL-38999 Cylindrical Connectors



Backplane with MT Optical Ferrules

Please see our websites:

www.amphenol-aerospace.com
www.amphenol-abs.com
www.amphenol-industrial.com