



HIGH PERFORMANCE INTERCONNECT SOLUTIONS FOR AEROSPACE & DEFENCE

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ABOUT US

Hypertac is a world leading provider of high performance electrical connectors and interconnect solutions for the most demanding applications and is part of the Connector Technology Group of Smiths Group - a global technology business listed on the London Stock Exchange.

OUR MISSION

To deliver interconnect solutions and services that create value for our customers by providing them with a competitive advantage.

OUR EXPERTISE

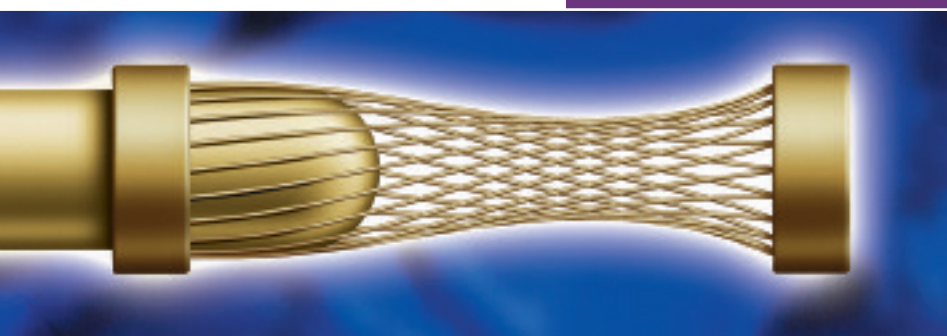
Hypertac's key operational strengths include rapid prototyping and global sourcing. With our world class engineering talent, these strengths enable us to respond quickly to customer requirements and provide them with the most reliable interconnect products available in today's market.

Our key markets include:

- Civil and Military Aerospace
- Ground Vehicles
- Future Combat Systems
- UAVs
- Communications
- Smart Munitions
- C4ISTAR
- Marine and Naval Systems

OUR CORE COMPETENCES

- High performance contact technology
- Design for manufacture
- Specific application knowledge
- Broad range of interconnect solutions including cable assemblies, power, high speed, filtering and transient suppression and integrated control functions
- Rapid prototyping and pre-production capability
- Global procurement to leverage best in class component manufacturing
- Project management aligned to industry requirements



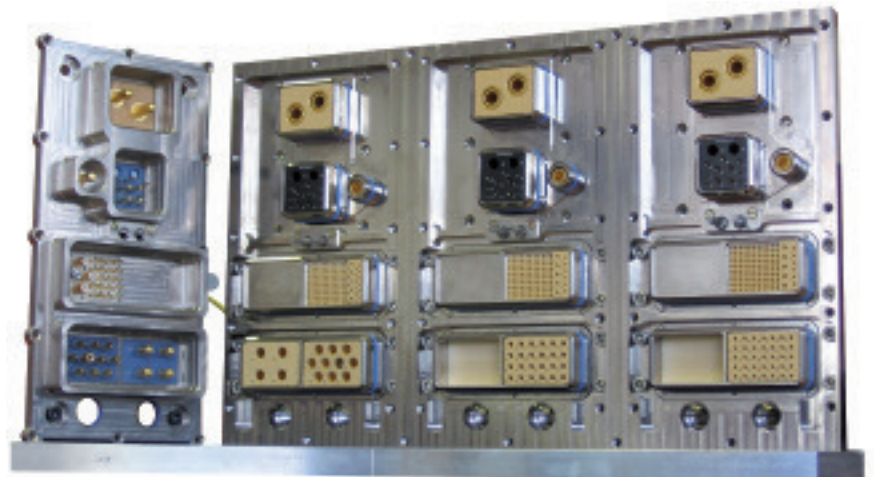
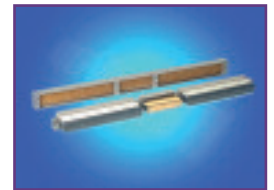
QUALITY AND ENVIRONMENT

Hypertac has been awarded the AS 9100, ISO 9001 and ISO 14001 quality and environment assurance certifications.

OFFERING VALUE ADDED CUSTOMER SOLUTIONS

Hypertac is a global leader in the design, manufacture and supply of high performance interconnect solutions. Hypertac utilises the superior Hyperboloid® contact technology which offers unrivalled performance in harsh environments encountered in military and commercial aerospace applications. We add value to our customers by offering:

- Unique, technically superior and flexible solutions that utilise the ultimate in contact performance and reliability
- Products which are fully project managed from initial concept through to final development
- Expert application knowledge ranging from specific products to system architecture
- Collective knowledge and expertise to maximise the value of our solutions to our customers



PROVIDING A COMPETITIVE ADVANTAGE

COMMERCIAL AVIATION

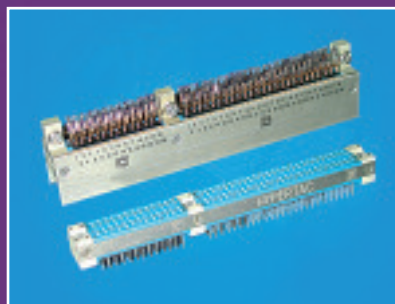
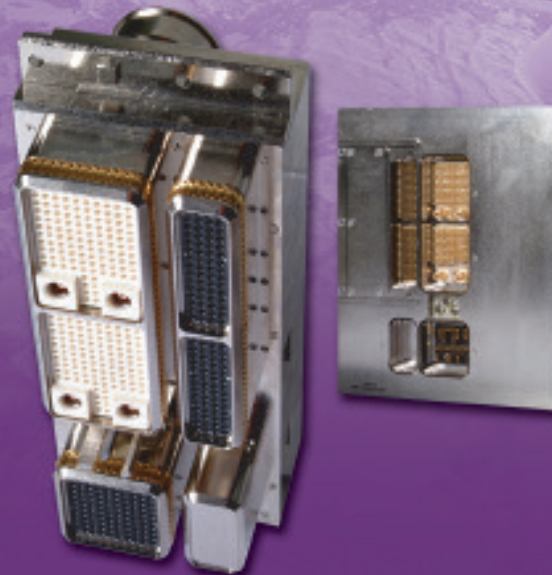
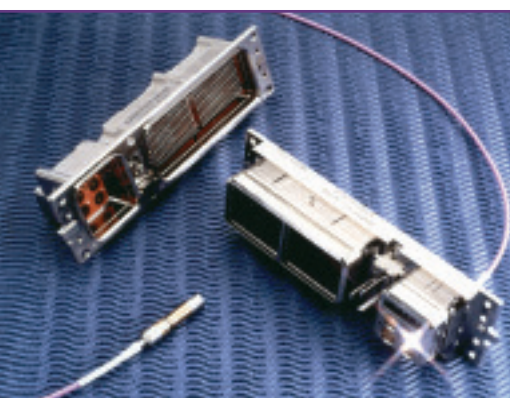
Hypertac offers proprietary interconnect solutions, technologies and full system integration capabilities for mission critical systems.



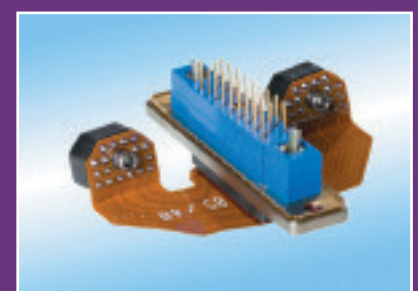
Manufacturers of passenger and cargo aircraft require highly reliable components. Reliability is a standard feature on all Hypertac products due to the leading edge technology that we utilise.

Applications include:

- Engine Control Systems
- Radar
- Displays
- Avionics Equipment
- Power Distribution Systems
- In Flight Entertainment
- Landing Gear Control Systems
- Wing and Engine Ice Protection
- Braking Control Systems



Hypertac has over 30 years experience in the design of specific components supporting platforms of major global aircraft manufacturers including Airbus, Boeing and Dassault.



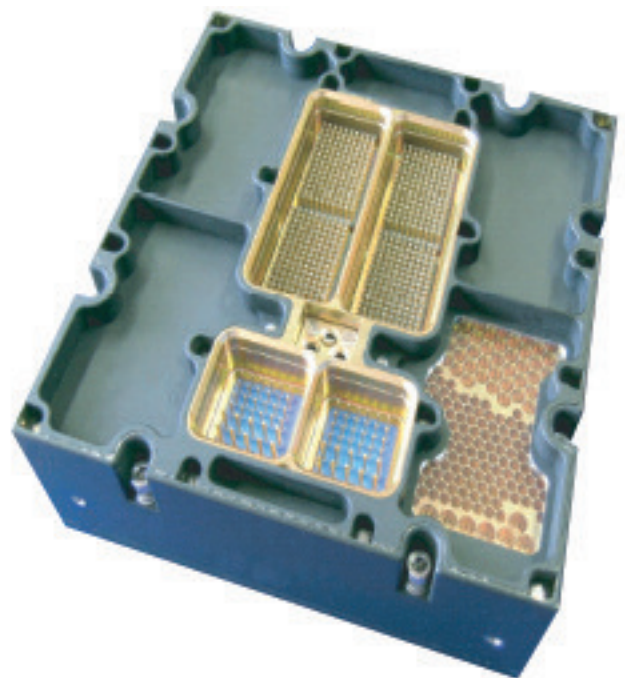
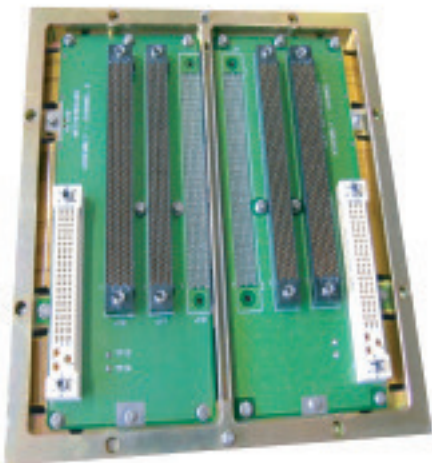
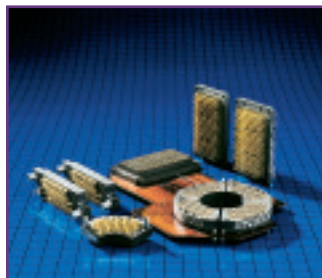
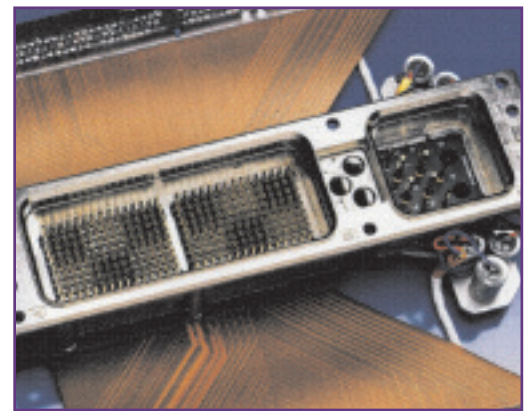
MILITARY AEROSPACE

Hypertac connectors are specifically designed to perform in demanding environmental conditions such as shock, vibration and extreme temperatures, which is mandatory for military and aerospace projects.

Hypertac can offer an extensive range of solutions that meet the requirements of military specifications. Our application solutions feature EMI/EMP protection, high speed data transmission capability, high contact density and high power. In addition, we offer bespoke solutions to meet application specific requirements.

Applications include:

- Combat Aircraft Avionics
- Power Generation
- UAVs
- Smart Munitions
- Radar Systems
- Landing Gear Controls
- Computer Systems





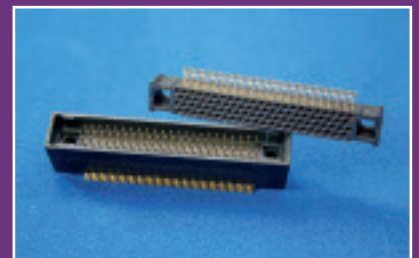
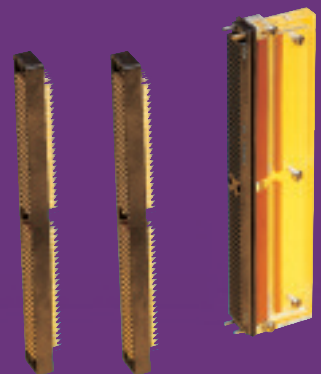
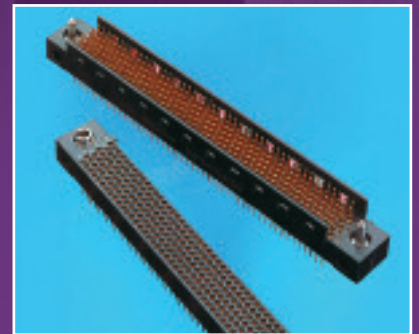
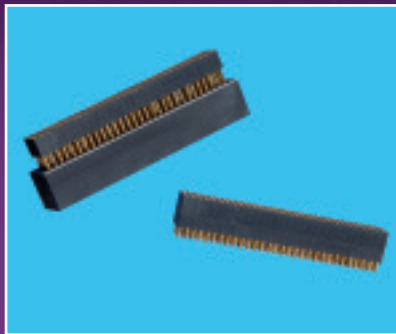
WORKING CLOSELY WITH OUR CUSTOMERS

Hypertac is committed to developing innovative and advanced technological solutions for key aerospace and defence projects including Eurofighter Typhoon, JSF and A400M. We work closely with our customers to design and manufacture connector solutions to achieve optimal system performance with low cost of ownership.

Our continually developing engineering expertise, rapid prototyping and pre-production capabilities enable Hypertac to partner with our customers to provide current and next generation application solutions.



PROVIDING THE NEXT GENERATION INTERCONNECT SOLUTIONS





FUTURE COMBAT SOLDIER SYSTEMS

The Hypertac SnapTac® is a unique, robust, quick release connector that solves all of the demanding interconnect challenges that a modern-day fighting soldier will face. Combined with our superior application knowledge, cable experience and overmoulding capability, we are able to design, develop and manufacture the complete point to point future soldier interconnect system.

Modern day systems use a considerable array of sophisticated technologies including:

- Health Monitoring Systems
- Radio Communications
- Common Core Computer
- GPS and Navigation Systems
- Thermal and Optical Systems

These systems have to be integrated to work as one harmonious system. The SnapTac® connector system is designed to protect the electrical interface against extreme environmental conditions such as:

- Dirt, sand and moisture ingress
- Extreme temperature changes
- Radio Frequency Interference
- Water submersion
- Shock
- Humidity



UNRIVALLED PERFORMANCE

IN THE HARSHTEST ENVIRONMENTS

MODERN BATTLEFIELD OPERATIONS

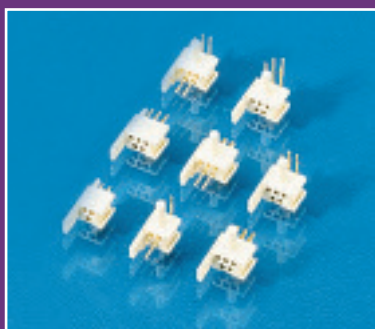
The next generation of vehicles require advanced technologies that enhance their performance, survivability, mobility and stealth. The introduction of these advanced technologies mean that power management in military vehicles is more critical than ever.

With the introduction of electric drive servo systems and vetronics into modern military vehicles, the efficient generation, distribution and storage of electrical power is crucial to achieve mission success.



Applications demanding new technology include:

- Improved Explosive Device Protection
- Air Conditioning and Cleaning Systems
- Power Control Systems
- Auxiliary Power Units
- Electric Drive
- Servo Systems
- Vetronics
- Munitions Handling
- Battery Systems
- Electric Armour





To meet this increasing power demand, we have expanded our range of standard and application specific interconnect solutions. The PCB range has been miniaturised to cope with the more sophisticated and complex electronic architecture used in modern vehicles. Our products include:

- Quick release single, double and triple pole power connectors
- High power and integrated rack and panel style connectors
- Single pole power terminals
- Custom cable to bulkhead connectors
- Miniature PCB connectors

The superior properties of our Hyperboloid® contact system offer land vehicle customers the following benefits:

- Increased power handling when compared to standard contact technology
- Improved resistance to shock and vibration
- High number of mating cycles
- Self cleaning action
- Low mating force



MARINE APPLICATION SOLUTIONS

Connectors must be able to withstand the harsh environments of marine applications where heat, dust, moisture, salt corrosion and chemicals are prevalent. Our knowledge of electrical connectivity has developed from our vast experience obtained within the defence and aerospace industries. Our connector solutions provide the flexibility, performance and reliability that our marine customers demand.

Applications include:

- Weapon Systems
- Submarine Control Systems
- Torpedo Guidance System
- Radar Installations
- Communications



PROVIDING LEADING EDGE TECHNOLOGIES



THE DIFFERENCE IS IN OUR CONTACT PERFORMANCE

HYPERTAC'S ADVANCED CONTACT DESIGN TECHNOLOGY SATISFIES THE MOST DEMANDING PERFORMANCE REQUIREMENTS

HYPERBOLOID®

The Hyperboloid® socket has a number of spring wires, the position of which is defined by a wire carrier. This is fitted to an outer sleeve or shank that carries the termination of the socket.

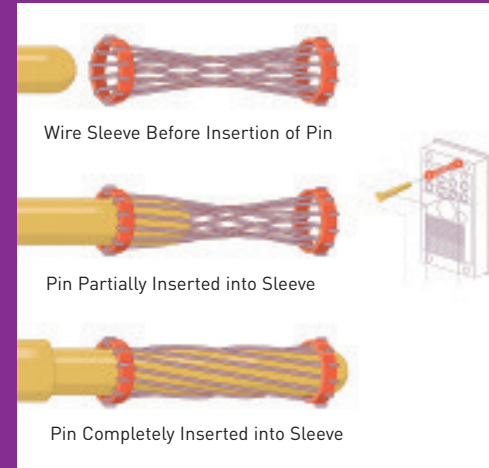
The spring wires within the socket are set at a small angle to the centre line and are deflected when the mating pin contact enters. Each spring wire is deflected within its elastic limit and makes a line contact with the pin. A smooth wiping action reduces wear of the plating surfaces of the pin and socket wires. This construction allows a very tight control of the spring forces and hence the insertion and withdrawal forces.

The Hypertac Hyperboloid® contact design ensures unrivalled performance in terms of:

- Multiple line contacts of low resistance maintained under high levels of shock and vibration
- Low insertion forces
- Low wear of plating surfaces for long life
- Uniform electrical and mechanical characteristics over a high number of mating operations (up to 100,000)
- High current rating

Hypertac Hyperboloid® contact provides the following commercial benefits:

- Low cost of ownership - does not need replacement during equipment life
- Reduced system costs - equipment design is less critical
- Reduced qualification costs - no re-testing due to contact failures



SPRING LOADED

Hypertac's HyperSpring® product combines our high reliability Hyperboloid® contact technology with the mechanical features of a spring-loaded contact, to produce interconnections with improved signal integrity, high reliability, current density and proven stability over time.



The key innovation in a HyperSpring® connector is that the spring itself is not used for electrical conduction. This is handled by a Hypertac socket placed between the barrel and the plunger of a common spring-loaded contact. This means that the material used to form the spring may be chosen solely on the basis of its mechanical properties, primarily its elasticity. As a consequence it is possible to optimize the physical performance of the overall system, achieving much higher mating operations than would otherwise be possible.

HIGH SPEED

Hypertac's ruggedized contact system is designed especially for the transmission of Ethernet high-speed signals required in harsh environment applications. The contact uses the Hypertac Hyperboloid® technology which guarantees excellent integrity and high reliability, even under high levels of shock and vibration.

In addition, Hypertac's high speed contact system is housed in a ruggedized shell which provides a reliable termination to the cabling. Our ruggedized contact system is available in Twinax, Triax and Quadrx versions. Hypertac high speed contact system meets the requirements of Ethernet Class F (CAT 7). It is compliant with the latest Ethernet standards (IEE802.3) and can handle data rates greater than 1.2 Gb/s.



PIN LOOP (RFF)

Hypertac's proprietary solderless contact technology RFF, made of a double elastic wire loop, ensures low contact resistance which makes it ideally suited for micro-currents. The spring ensures the necessary compression on the modules to be interconnected. The combination between the elastic wire loop and the compression spring guarantees a total continuity of contact, as acknowledged by its ESA qualification.



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