

## HIGH RELIABILITY CONNECTORS FOR TEST & MEASUREMENT APPLICATIONS

# HYPERTAC CONNECTORS FOR TEST

## AND MEASUREMENT APPLICATIONS

### A WORLD LEADING PROVIDER

Hypertac is a world-leading provider of high performance electrical connector and interconnect solutions for Test & Measurement applications, with manufacturing sites in Europe, America and Asia. The company provides complete standard and custom design solutions including cabling, mechanical, instrumentation housing and electrical modelling and testing.

Hypertac offers the benefits of a large global business while maintaining its geographic presence. This structure ensures that customers are able to interact with engineers and sales colleagues who speak their own language, have comprehensive knowledge of the range of products available throughout the group and can draw on experience from working in particular application environments.

### OUR VALUES

#### COOPERATION

The relationship with our customers and suppliers is based on partnership, teamwork and individual creativity.

#### INNOVATION

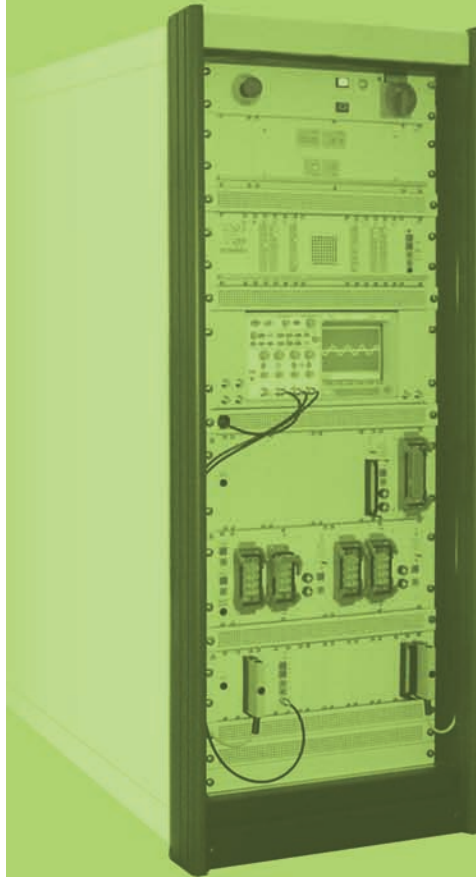
Innovation is the result of new ideas implemented by state-of-the-art design and development tools.

#### RELIABILITY

All our products are based on a high level of quality, reliability and precision. Hypertac connectors are fitted with our unique hyperboloid contact technology, an advanced design that satisfies the most demanding performance requirements.

#### SERVICE

Value added electrical and electronic interconnect solutions and a worldwide distribution network are the essential components of our performance.

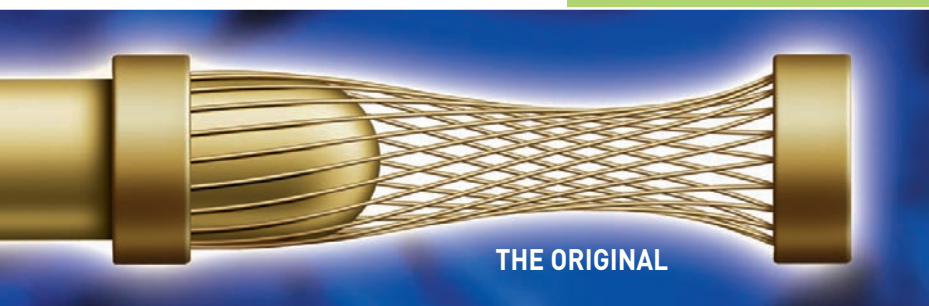


### EXPERIENCE

Customer satisfaction is our utmost goal. Our experience in Test & Measurement applications ensures proven benefit to customers. Our products meet customer special requirements by an optimised cost performance ratio.

### QUALITY AND ENVIRONMENT

Active quality and commitment to continuous improvement, including the prevention of pollution, ranks first and foremost in all respects. Hypertac certification to DIN EN ISO 9001 and DIN EN ISO 14001 is the result.



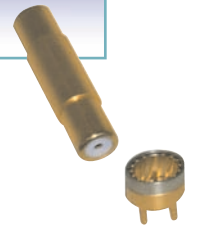
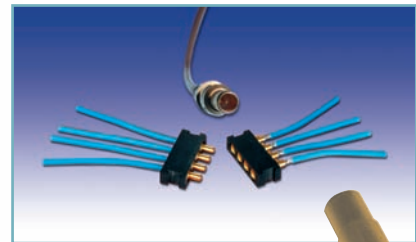
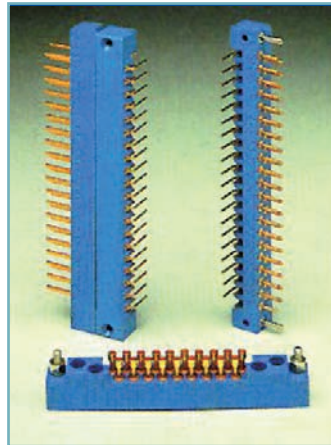


## OUR PRODUCT RANGE

Test equipment applications rely on the integrity of the components used within them. Our connectors ensure superior longevity with exceptionally low mating forces even when using high pin counts as requested in test applications, including microchips, wafer and burn-in, automotive testing and other high value components.

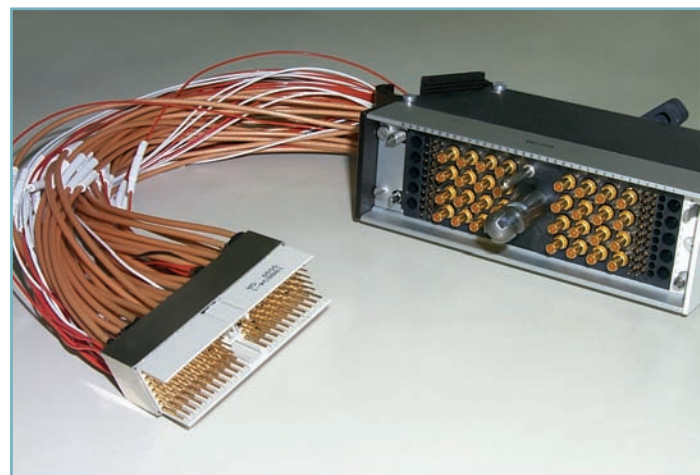
Hypertac broad range of standard and custom PCB, modular, rectangular and circular connectors solutions save valuable engineering and manufacturing time for customers and ensure the overall reliability of the final product.

Hypertac also offers a number of value added services to customers, including cable assembly, prototyping, instrumentation housing, electrical modelling and testing, and equipment qualification.



## OUR CAPABILITIES

- Engineering, Design and Development
- CAD/CAM and Solid Modelling
- Prototyping
- Finite Element Analysis
- Extensive Machine Shops
- Contact Manufacturing
- Connector and Cable Assembly
- System Integration
- Qualification, Electrical and Mechanical Testing
- Project Management



# SEMICONDUCTOR TESTING

## SOLVING INTERCONNECT CHALLENGES THROUGH UNRIVALLED PERFORMANCE

### WAFER TEST-HEAD SOLUTIONS

Hypertac Touch Wafer interconnect solution (HyperTower) using Hypertac contact technology is suitable for single or multitouch at 300mm wafer.

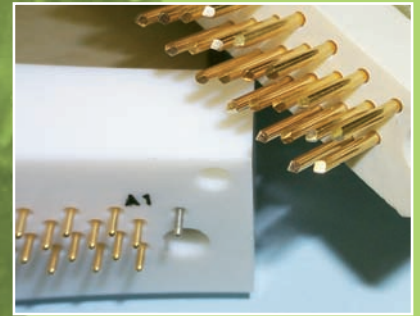
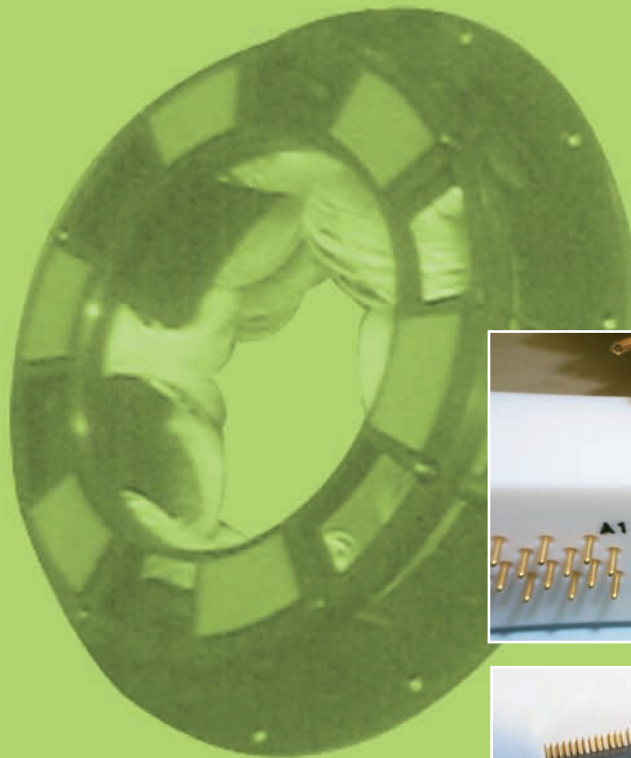
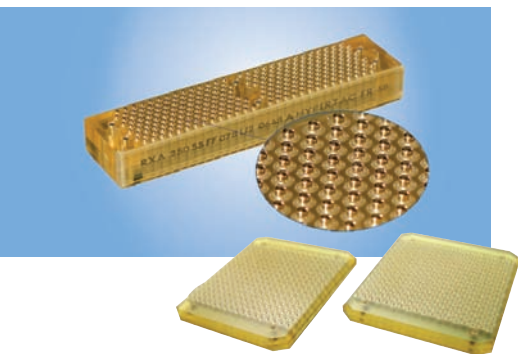
It offers:

- the largest active area on Probe Card available in the marketplace
- up to 28.000 test points
- direct mating and fixing of Probe Card to the Test Head (zero force during the Wafer testing)
- low cost of the test process

### FINAL TEST SOLUTIONS

Hypertac is able to offer interposer solutions for the connection of the single IC socket test board, high-density SOC/SIP 1mm pitch packages and multiple site testing.

Discrete contacts (signal, power and RF) are also available.



## WE LISTEN TO CUSTOMER NEEDS AND OFFER FIRST RATE QUALITY SOLUTIONS

### BURN-IN APPLICATIONS

Burn-In-Test equipment relies on elevated voltages, temperatures and power cycling to evaluate high power chips, boards of products.

Hypertac hyperboloid pin loop and spring contact technologies are embedded into high pin count, high temperature solutions, where space and efficiency are at a premium.





# AUTOMOTIVE TESTING

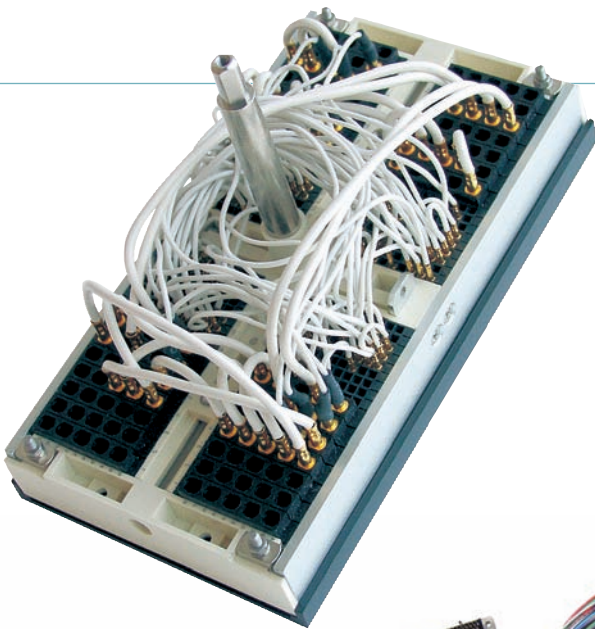
## CUSTOM CONNECTORS

Hypertac team has a long lasting experience in packing the Hypertac contact into connectors for automotive testing applications. The hyperboloid technology is ideal for quick and cost effective custom solutions that match the customer's needs.

Typical applications for Hypertac interconnect systems are:

- Sensor head adjustment and processor unit analysis
- Encoders
- Simulators
- Probers
- Interfaces

Hypertac broad range of connectors enables design engineers to achieve their performance targets. Whether the priority is a proven cost-optimized solution or the best performing connector on the market, Hypertac is your supplier for standard or customised complete electrical interconnect solutions.

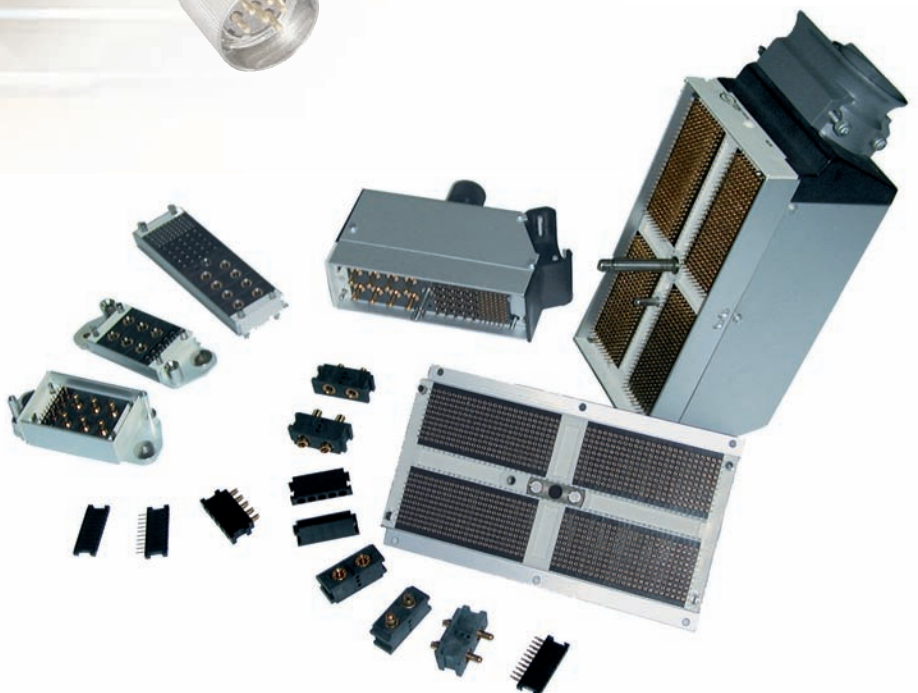


## DYNAMIC TEST & MEASUREMENT EQUIPMENT

Hypertac high-density modular connectors satisfy all the needs of modern Hardware-in-the-Loop (HiL) test applications. Main features of Hypertac connectors are low or zero mating forces and high mating cycles.

Pre-fabricated modular interconnect systems with individual loops for different vehicle types are minimising hardware wiring times. Savings are particularly noticeable by using 100% tested and coded plugs.

Hypertac has developed special hyperboloid sockets to test car components using flat blade and square pin contacts.



# ELECTRONICS TESTING

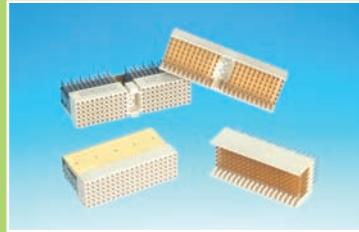
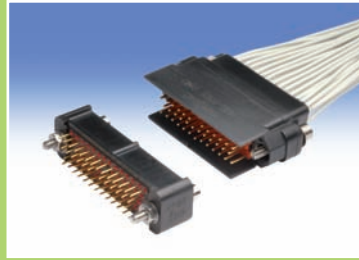
## SUPERIOR LONGEVITY OF OPERATION

Test instrumentation devices are often connected and disconnected many times, thus requesting the high mating cycles and low insertion/extraction forces of the Hypertac contact system. Using Hypertac increases the number of mating cycles by greater than x10 (up to 100 000 cycles) compared to COTS connectors.

Hypertac connecting solutions are ideal for critical test applications such as:

- Direct probe contacting
- In-circuit board test systems
- Board and power testers
- Automation components
- Test bench components

Customers have the choice of different modular solutions as well as of custom interfaces specifically designed for their unique application.

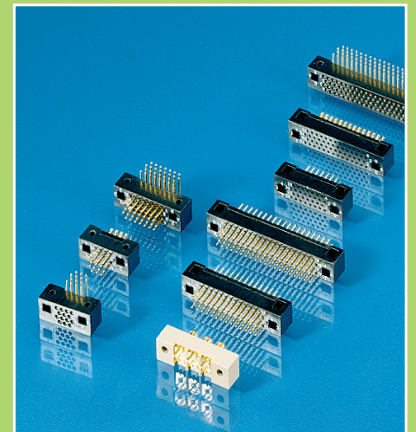
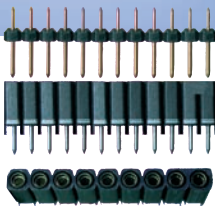


## HIGH DENSITY CONNECTORS WITH LOW OR ZERO INSERTION FORCE

### VALUE ADDED SOLUTIONS

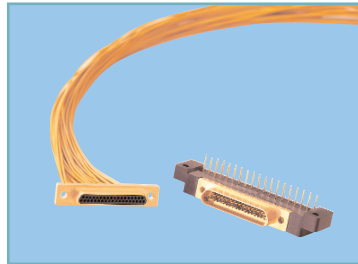
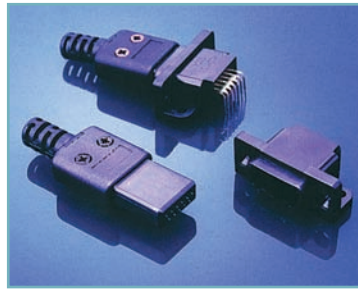
Hypertac offers a number of value added services to ensure a quick and effective response to the customer requirements. All Hypertac locations are staffed with state-of-the-art design and development tools, such as 3D solid modelling, CNC milling, rapid testing and prototyping. These tools allow Hypertac to demonstrate product feasibility and to provide customers with quick turnaround on custom designs. Hypertac also expands the quality of its connectors to the sub-system supply, either rack & panel or cable assembly, offering one source supply service to customers.

The brochure presents the most popular connector series for Test & Measurement applications. However, we understand that most applications are unique. We will work with you and build the best interconnect solutions for your specific requirements.





# AVIONICS & RAILWAY TESTING



## OPTIMAL SYSTEM PERFORMANCE

Test systems in avionics, rail and other industrial systems are more demanding compared to other test applications. Measurements include many different signals, bus systems and protocols and require high data rates. At the same time, the systems need to be easy to maintain.

New trends are emulation-based ATE, FPGA-enabled instrumentation, high-speed data buses, CMMI and ATML and the systems are based on open industry standards like PXI.

Therefore Hypertac new high performance products like High Speed, PC104/COTS, High Power and Miniature connectors enable test engineers to lower the total cost of test and increase longevity, performance and flexibility, thanks to the superior hyperboloid contact technology.

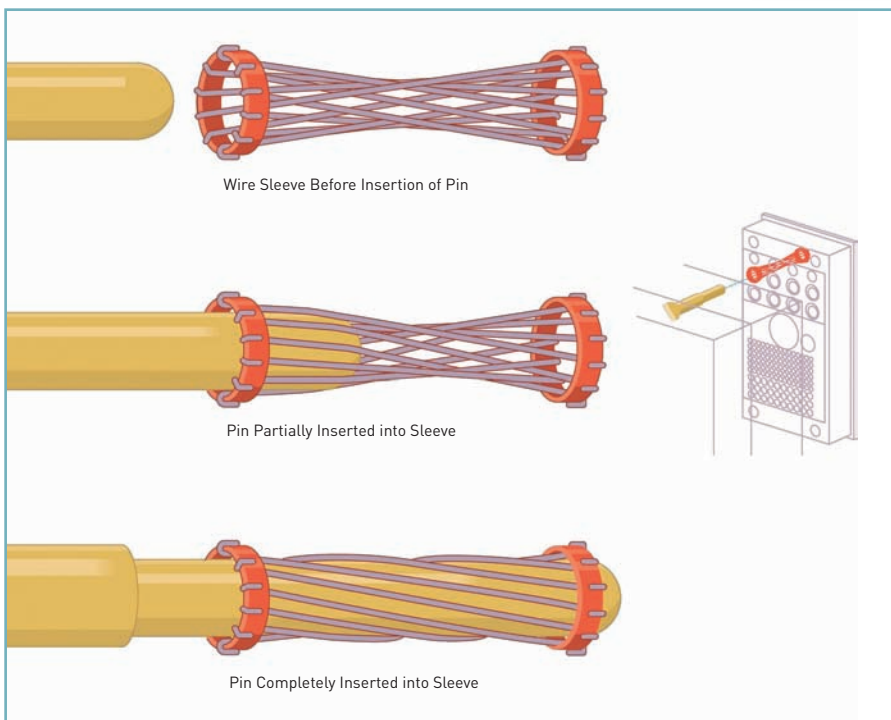


## HYPERTAC® IS AN ADVANCED CONTACT DESIGN THAT SATISFIES PERFORMANCE REQUIREMENTS PREVIOUSLY CONSIDERED IMPOSSIBLE

The shape of the contact is formed by wires strung at an angle to the socket's axis. When the pin is inserted into this sleeve, the wires stretch around it, providing a high number of linear contact paths.

Performance features are:

- Low insertion/extraction forces
- Shock and vibration proof
- High current and voltage ratings
- Low electrical contact resistance
- Long life and low rate of wear



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