



RF & High Speed

About Us

Hypertac has provided premium, technically superior interconnect solutions for more than fifty years and continue to add value to customers by addressing their specific needs and industry requirements, using the ultimate in contact performance and reliability.

Years of experience and expertise have enabled Hypertac to create an advanced RF and High Speed connector capability.

Produced to specifically address the European market needs, the connector can provide the latest technological solutions to customers' RF and High Speed data transmission requirements.

RF and High Speed connectors can also incorporate the superior Hyperboloid socket contact technology proven in the most demanding of applications.



Our Key Strengths

- Design & Performance Simulation
- Material Selection Tools for Design Modelling and Simulation
- Cable Optimisation
- System Verification
- Temperature Range Capability
- Mating Cycles Capability
- Design Software
- Validation Hardware

Connector Types

- Micro Twinax and Quadrx contacts and connectors
- Multipin Coax and Triax Connectors
- Miniature Triax connectors
- SnapTac
- Rectangular (JN1123, Arinc 600, Arinc 404, 83527) D Style (sub D, 24308, Micro d 83153)
- Military Circular (38999, 5015, 26500)
- Chassis able to incorporate connector shell as integral machined item

RF and High Speed Connector

Within a single connector, it is possible to have:

- Coax, Triax, Twinax, Quadrx contacts alongside signal and power contacts
- Transient protection and EMI filtering
- All cable shields grounded directly to connector shell
- Socket contacts that use Hyperboloid and HyperSpring© contact technology

Characteristics

- Impedance Matching
- VSWR
- S-Parameter
- Operating Frequency
- Data Rate
- Mating Cycles
- Cables



Connector Technology

- Contacts are impedance matched to cables ensuring optimum performance
- Contacts can either be grounded or isolated within the connector shell as required
- Crimp, solder, straight and right angled cable and PC tail terminations available
- Phase matched cable assemblies available

RF & High Speed Knowledge

Enables us to:

- Design and manufacture contacts operating at frequencies up to 40 GHz and above 4Gbps
- Optimise contact design for specific cable characteristics
- Provide insertion loss, VSWR and Eye Pattern and S Parameter simulations
- Verify high frequency and data transmission performance across entire frequency range
- Adopt Hyperboloid socket contact technology for high mating cycle, low fretting requirements
- Adopt HyperSpring© socket contact technology for sealed when unmated and push pull connector applications



Design, Engineering & Manufacturing Capabilities

- CAD/CAM and Solid Modelling
- Prototyping
- Finite Element Analysis
- Extensive Machine Shops
- Contact Manufacturing
- Connector Assembly
- Complex Cable Assembly
- System Integration & Final Test
- Qualification inc. Electrical & Mechanical Testing
- Project Management
- Through life Support

Full Verification & Qualification Testing

- Vibration, mechanical shock and durability
- Sealing against water and particle ingress
- DWV at sea level and altitude
- Insulation resistance
- Salt spray
- Earth bond resistance testing/shell to shell conductivity
- Thermal shock and cycling
- Temperature life
- Cyclic humidity
- Impedance Matching, VSWR and Insertion Loss Testing

Flexible & Reactive Supply Chain

- Ability to multi source components
- Managing our obsolescence
- Improved logistics
- Cost reduction processes
- Rapid prototyping facility