

With more than 50 years of experience in demanding applications, Hypertac is recognised as one of the most reliable suppliers of interconnect solutions worldwide. While manufacturing standard connectors, Hypertac expertise is in application specific engineering. Hypertac engineers work directly with customers to develop unique solutions that address specific needs and industry requirements.



Aerospace & Defence



Marine



Space



Rail Transportation











WORLDWIDE LOCATIONS







Hypertac is a world leading provider of high performance interconnect solutions for the most demanding applications

Hypertac is part of the Connector Technology Group of Smiths Group plc. Smiths is a world leader in the practical application of advanced technologies and is listed on the London Stock Exchange.

Hypertac provides high performance electrical connectors and interconnect solutions for the most demanding applications. The customer is supported by design and manufacturing sites in America, Europe, Africa and Asia and by a global network of agents and distributors. Standard and custom solutions are provided for customers, including cabling, mechanical, instrumentation housing, and electrical modelling and testing. Custom solutions save valuable engineering and manufacturing time for our customers and ensure the overall reliability of the final product.

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 a comprehensive knowledge of the range of products available throughout the group and can draw on experience from working in particular application environments.

Our mission

Our mission is to deliver interconnect solutions and services that create value for our customers by providing them with a competitive advantage.

We meet the customer's need, whether it is a single specialist contact, a custom interconnect solution, a cable harness or a complete pre-tested subsystem. Our success does not rely solely on our technology, but also on data management, manufacturing systems, forward planning tools, quality control and the ability to supply functional prototypes.



Our expertise

The businesses' proficiency extends from the drafting table onto the manufacturing floor. The two key operational strengths within the group are rapid prototyping and global sourcing. Together with world class engineering talent, these strengths enable Hypertac to respond quickly and accurately to customer needs and provide customers with the most reliable interconnect products available in today's market. Internal working committees ensure experience sharing inside the group, as well as the adoption of best practices worldwide

Our capabilities

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

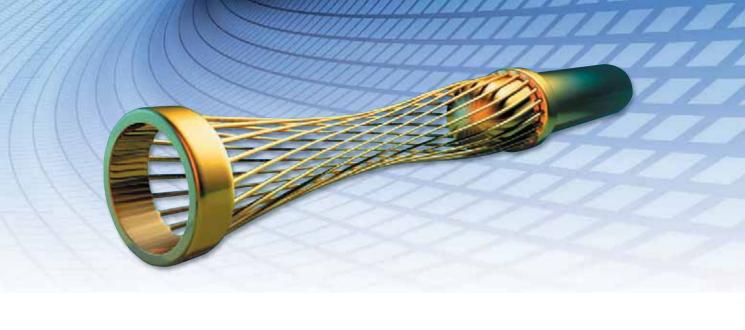


Quality & Environment

First-class material, state-of-the-art development methods, advanced know how and exact processing are the essential ingredients of our quality.

Our focus on growth is balanced by a respect for the environment. We try to find ways to minimise our impact on the environment by keeping our energy, water consumption and waste to a minimum through the use of best practices.

Active quality and commitment to continuous improvement, including the prevention of pollution, rank first and foremost in all respects. Hypertac certification to DIN EN ISO 9001, DIN EN ISO 14001, DIN EN ISO 13485, AS EN 9100, and BS OHSAS 18001 is the result. Hypertac is IRIS certified since 2008.



Product range

PCB Connectors

Modular Connectors

Rectangular Connectors

Circular Connectors

ARINC Connectors

Couplers

Backplane and Panel Mount Connectors

Discrete Contacts

Cable Assemblies

Custom Interconnects



Contact technologies

Hyperboloid

Spring Loaded

Spring Probe

High Density Tortac®

High Power

High Temperature

High Speed

Pin Loop (FF)

Stamped

Non Magnetic

Fibre Optics

Connector types

Medium density

High density

Flex PCB

Miniature

Stacking

High Speed

Rack and Panel

COTS Backplane

Airframe (H4, H6, H8)

High Voltage

High Power

Hermetic

Filter and Transient Protected

Metric (M12, M17, M23, M40, M58)

Fibre Optics







HDLP



High density PCB, low height profile









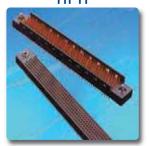
C128



High density 128 ways, miniature PCB with Tortac technology



HPH



High density signal PCB









RD



Micro miniature strip PCB



SNAPTAC



Miniature rectangular for soldier modernisation programmes





High density PCB, mixed signal and power









HBB



Quick release, 1,2,3 pole, metal and plastic





SNAPTAC



Miniature circular for soldier modernisation programmes



C9394



High density metal shelled PCB and LRM with flex







HPD / KN / CH



Medium density signal PCB







CMD



High density signal PCB, 4 rows with flex



D



Push/pull quick disconnect signal and power









C150



High density, 8 rows with flex



H4, H6, H8



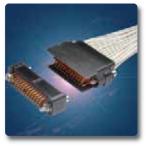
Rack and panel ARINC 404, 600 and 700







HMD



High density signal PCB and cable







MHD / MDD



High density PCB, signal, power and coax





C55



Micro circular, 55 way



PZC



Float mounting miniature rectangular, for very harsh environments.









High density, miniature rectangular PCB with Tortac technology



H₀B



Shielded custom interconnect systems







HPH



High density signal PCB







HEAVY DUTY



Metal shell, modular NATO approved









High power single pole connector



S / L STAINLESS



M23 stainless steel, signal and power





DL



Circular, high voltage







L/H



Modular and mini modular, cable/rack and panel









H6



Rack and panel ARINC 600











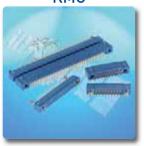
MHD



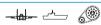
High density PCB, signal, power and coax



KMC

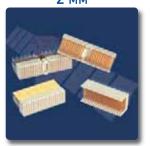


Medium density signal PCB, 3 rows





2 MM



2mm connector interchangeable with cPCI COTS systems



HDLP



High density PCB, low height profile

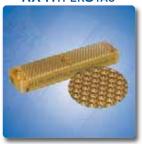








RX HYPERSTAC

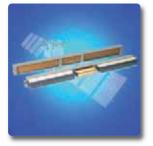


High density stacking interconnect module





VME64x



VME64x ruggedised connectors







CSD



High density signal PCB, 4 rows



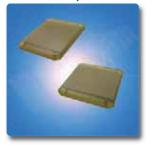
PC 104+



Ruggedised connector compliant with PC104 specifications



HYPERGRID / HYMSTAC



Fine pitch connectors













Rack and panel modular









L Power



300A high power modules







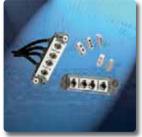
KDC / HDC



DIN 41612 PCB and cable, mixed signal, power and coax



LHS



Flat floating modular



HYPERMOD



Metal and plastic shell, modular and single body







M12



M12 circular, 4 ways, D code





LHZ



Rack and panel flat mounting

REP



Environmentally sealed rectangular plastic









Plastic hooded, threaded jackscrew







C165

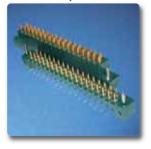


Plastic shell shielded, D-type, 2 rows





KJB / KGA



HE 704 derived PCB, French Railways approved



FH - FG - FI



Car-to-car modular and rectangular couplers





D-SUB



High power filter combo D-Sub





TRANSIENT PROTECTION



Transient protected







For signal, power, fibre optics, high speed and coax



C16 / C17



High power, high current rectangular

MINI-BOA



Heavy duty transponder

HBC



Quick release power, metal and plastic







H/L



Modular and mini modular, signal, power, fibre optics, high speed and coax









M12 circular, 3,4,5 ways





HNG



Custom coding connectors

HEAVY DUTY



Heavy duty modular, signal, power, fibre optics, high speed and coax







REP



Environmentally sealed rectangular plastic





HBC



Quick release single pole power, metal and plastic

CEA

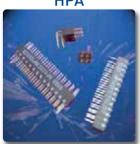


Plastic shell, D-type for data transfer





HPA



Miniature signal PCB, 2 rows

C



EMC metal circular









SH / LH



M17 midsize, signal and power

S/L



M23 signal

S MULTIBUS



M23 multibus for all fieldbus systems

K



M31 signal, 26 ways

S / L STAINLESS



M23 stainless steel, signal and power





M23 power, up to 30A







M40 medium power, up to 65A, size 1.5





M58 high power, up to 165A, size 3









Push-pull quick disconnect metal, signal and power





Hyper Tower



Touch wafer interconnect



HOB



Shielded custom interconnect systems







C153



High density signal PCB, 2 rows



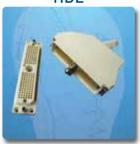


High density, mini modular, signal, power and coax





HDL



Test equipment signal PCB







L Power



3x300A modular







RBA



Single row signal PCB





HMD



High density signal PCB and cable









DA / DB / DC



Signal and power quick disconnect, plastic











HYPERGRIP



Push pull quick disconnect plastic circular











Rack and panel modular









HLC



Signal connectors (hand held)



MEDITAC



Quick disconnect signal plastic circular

HYMED



High voltage custom

Н



High density mini modular, signal, power and coax





D



Signal and power quick disconnect, plastic











Signal connectors (docking stations)





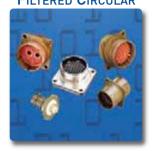


Discrete signal and power contacts



HIGH SPEED FILTERING Technologies and products include a complete line of fibre optics, coax, triax, and differential impedance twinax and quadrax contacts, connectors and cable assemblies for high speed Ethernet, Firewire and Fibre Channel applications. Hypertac's expertise in EMI filtering and transient protection results in a broad variety of connector styles, filtering performances and transient protection solutions. All RF and High Speed contacts and filtered and transient protected connectors may now incorporate the Hyperboloid socket contact technology for improved mating cycle and fretting corrosion performance.

FILTERED CIRCULAR



Filtered military circular







HIGH SPEED AND RF



Coax, triax, twinax and quadrax contacts









MULTIPIN COAX



PCB, chassis and free mounting styles









FILTERED RECTANGULAR



Filtered military rectangular









HIGH SPEED AND RF



High speed circular and rectangular connectors









RUGGED D-SUB



Quadrax/twinax panel mount D-Sub







TRANSIENT PROTECTION



Transient protected









MICRO TWINAX



Micro twinax/quadrax









FIBRE OPTICS



Fibre optics connectors and contacts











Hypertac valued added services ensure a quick and effective response to the customer requirements. Our state-of-the-art design and development tools (3D solid modelling, CNC milling and turning, rapid testing and prototyping) provide customers with quick turnaround on custom designs. The quality of our connectors extends to the sub-system supply, either rack & panel or cable assembly, offering one source supply service to our valued customers. Equipment qualification services are also provided to the customer specifications.



VALUE ADDED SOLUTIONS

PROJECT DESIGN



Project design and development

CUSTOM DESIGN



Optimised connector design with enhanced functionality

RACK & PANEL



Rack and panel applications

System Integration



Fully integrated interconnect systems

CABLING



Standard and custom pre-assembled cabling systems

OVERMOULDING



Overmoulded assemblies

TESTING



Test equipment for performance simulation and verification

TERMINATIONS



Fibre optics terminations

QUALIFICATION



Qualification and testing



	P	СВ			
Connector Series	Description	Pitch mm	Contact No	Nominal current	Nominal PIN dia (mm)
C128	High density miniature with Tortac technology	1.27	128	3A	0.5
C150	High density signal, 8 contact rows with flex	2.54	304 & 372	4A	0.5
C153	High density signal, 2 contact rows	1.905	57	2A	0.5
C160	High density miniature with Tortac technology	1.27	160	2A	0.5
C9394	High density metal shelled PCB and LRM with flex, 6 contact rows	1.905	100 to 450	4A	0.6
CI-D	Medium density PCB to cable, 2 contact rows	2.54	11 to 47	8A	1.5
CMD / CSD	High density signal, 4 contact rows with flex	1.905	42 to 316	4A	0.5
CSC	Medium density signal, 3 contact rows	2.54	80 & 160	5A	0.76
HDLP	High density PCB, low height profile	1.5	30 to 118	2A	0.4
HPA	Miniature signal PCB, 2 contact rows	2.54	2 to 90	3A	0.5
HPD	Medium density signal PCB	2.54	17 to 160	4A	0.6
НРН	High density signal PCB	1.905	20 to 303	4A	0.6
HPW	High density PCB, mixed signal and power	2.54/5.08	20 to 107	5A/15A	0.75/1.56
HyperGrid/ HymStac	Fine pitch connectors	0.5/0.8/1.0/1.27	1 to 4	Up to 2.5A	-
HyperStac RX	High density stacking interconnect module	1.905	Up to 999	1A	0.30FF
KDC/HDC	DIN 41612 PCB and cable, mixed signal, power and coax	2.54/5.08	32 to 192	3A/4A/7.5A/10A	0.6/1/3.6
KJB	Medium density PCB, HE 704 derived	2.54	35	8A	1.5
KGA	Single row PCB	2.54	12	4A	0.76
КМС	High density PCB, 3 rows, mixed signal, power and coax	2.54	26 to 162	3A	0.5
KN	2 and 3 rows, medium density PCB signal	2.54	Up to 160	3A/5A	0.6
MHD / MDD	High density PCB, mixed signal, power and coax	1.905	52 to 400	3A/15A	0.5/2.0
PC104+	Ruggedised connector compliant with PC104 specifications	2.0	Up to 120	1A	0.4
RBA	Single row signal PCB	2.54	Up to 27	4A	0.76
RD	Micro miniature strip PCB	1.27	Up to 60	3A	0.3
VME64x	VME64x ruggedised connectors	2.54/2.0	-	2.5A/1A	0.4/0.5
2mm	2mm connector interchangeable with cPCI COTS systems	2.0	95 to 125	1A	0.4
HMD	Micro D style signal	1.905	50 to 51	3A/4A	0.6

Modular / Rectangular				
Connector Series	Description	Contact No	Nominal current	Nominal PIN dia (mm)
В	Plastic hooded, threaded jackscrew	Up to 100	9A to 25A	1.5 to 3.5
C165	Plastic shell shielded, D-type, 2 contact rows	11 to 40	10A	1.0
C16-C17	High power, high current	On request	Up to 800A	Up to 25
CEA	Plastic shell, D-type for data transfer	5 to 9	A8	1.5
FH/FG/FI	Car-to-car rectangular couplers	Up to 560	Up to 650A	1.5/7/15
GS	D-Sub rectangular I/O	9 to 50	7.5A	1
Н	High density mini modular, mixed signal, power and coax	Up to 1000	1A to 50A	0.4 to 3.5
HDL	Test equipment, signal	Up to 156	4A	0.6
HFR	Cable to panel single piece insulator	32 to 110	13A	1.5
HLC	Signal connectors (hand held)	11	5A	0.6
нов	Shielded modular connectors	Up 320	5A to 50A	0.6 to 3.5
Heavy Duty	Metal shell, heavy duty, modular	6 to 280	5A to 60A	1 to 3.5
KS	Signal connectors (docking stations)	10	2.5A	0.45
L	Modular, cable/rack and panel	On request	5A to 300A	1.0 to 9.0
LHS	Flat floating modular	Up to 70	8A to 25A	1.5
LHZ	Rack and panel flat mounting	Up to 50	8A to 25A	1.5 to 3.5
М	Miniature connectors for PCB mounting or cable-to-cable	3, 5, 9	3A	0.5
Micro D	Ultra miniature signal	9 to 100	3A	0.3
PZC	Float mounting miniature for harsh environment	20 to 41	7.5A	1
REP	Environmentally sealed rectangular plastic	2, 6, 12	ЗА	0.3
SnapTac	Miniature rectangular for future combat soldier	12, 21	13A	1.5
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	AR	RINC		
Connector Series	Description	Shell Size	No. Insert	Contact No. Size
DO	ARINC 628 signal and power plastic			2 to 7/ 0.5 to 1.5
H4	ARINC 404 rack and panel	1/2/3/4	up to 4	424 / #22 to #8
Н6	ARINC 600 rack and panel	1/2/3	up to 6	800 / #22 to #8
Н8	ARINC 700 rack and panel	2/3/4	up to 6	750 / #22 to #8



Circular					
Connector Series	Description	Number of ways	Nominal current	Nominal PIN dia (mm)	
BOA	Heavy duty transponder for Eurobalise	10	>1.5A	1.42	
С	EMC metal	3 to 12	8A to 15A	1 to 3	
C 55	Micro circular for software radio	55	2A	0.5	
D	Push pull quick disconnect signal and power metal	2 to 25	2A to 34A	0.6 to 3.5	
DA/DB/DC	Quick disconnect, signal and power, plastic	3 to 25	1A to 8A	0.4 to 1.5	
F	High power single pole	1	110A to 500A	7 to 15	
НВВ/НВС	Quick release, 1, 2, 3 pole, power	1	300A to 750A	9 to 20	
Hymed	High voltage custom connectors	5	40A	0.6/1.5	
HyperGrip	Push pull quick disconnect plastic and cables	12	1A	0.4	
HyperMetic	Cylindrical hermetic electrical couplers	Up to 125	3A to 15A	Up to 1.5	
HyperRel	Ruggedised connectors intermateable with MIL-C-38999 Serie III	3 to 128	5A to 20A	0.76 to 2.39	
K	M31 signal, 26 ways	26	9A	1	
Meditac	Quick disconnect signal connectors and cables	6 to 8	1A	0.4	
M12	M12 circular, signal	3, 4, 5	3A to 6A	1	
Р	M40 size 1.5, power	6 to 8	65A	3.6	
S/L	M23 size 1, power and signal (also stainless steel)	S: 6 to 17 L: 6 to 9	9A to 20A 22A to 30A	1 to 2 2	
SH/LH	M17 medium size power and signal	SH: 17 LH: 4 to 9	3.6A 14A	0.6 1 to 1.5	
SnapTac	Miniature circular for future combat soldier	7, 13, 19	3A	0.5	
V	M58 size 3, power	6 to 8	165A	10	

High Speed and Filtering					
Connector Series	Description	Contact	Characteristics	Notes	
Filtered Circular Connectors	e.g. MIL-DTL-38999, 26482, 26500, connectors	Size 8 to 22d, insert arrangements up to 128 ways	Capacitance values up to 100nF and above	C, LC, Pi and T filter styles available	
Filtered Rectangular Connectors	e.g. ARINC 404,600, MIL-DTL-83527, 24308, 83513	Size 8 to 22d, insert arrangements up to 150 ways	Capacitance values up to 100nF and above	C, LC, Pi and T filter styles available	
Transient Protection	Circular and rectangular connectors	Stand off voltages can vary for each contact	TVS protection up to 30kW	RTCA D160F, IEC61000	
High Speed Contacts	Coax, triax, twinax and quadrax contacts	For military circular, rectangular and D-Sub connectors	Characteristic impedances from 500hms to 150 0hms	Up to 40 GHz and 3.5 Gbps	
High Speed Circular and Rectangular Connectors	e.g. MIL-DTL-38999, 26482, 26500 and ARINC 404,600, MIL-DTL-83527, 24308, 83513	All high speed contacts	Special grounded inserts available to ground screen to chassis	Inserts with keyed cavities to align twinax and quadrax contacts	
Micro Twinax Micro Quadrax	Connector styles include NDL, Micro-D and SMA sizes	Matched impedance networks	100 and 150 ohm characteristic impedance	Up to 2 Gbps min	
Multipin Coax Connectors	PCB, chassis and free mounting styles	Mixed signal, power and coax arrangements available	50 Ohms	VSWR < 1.25 up to 20 GHz	
Rugged D-Sub	Quad/twinax panel mount D-Sub connectors	Size 9 twinax and quadrax, layouts up to 21 ways	Characteristic impedances of 100 or 150 Ohms, or as required	Data rates up to 3.5 Gbps	
Fiber Optics	Size 5 and size 12 expanded beam, ARINC 801, size 16 butt-joint, DIN style contacts	For military circular, rectangular, and D-Sub connectors	Multimode and single mode variants	Compatible with both tight and loose jacket cables	

The difference is in the contact performance

Hypertac Hyperboloid contact design technology satisfies the most demanding performance requirements

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



HyperSpring®

HyperSpring® combines the electrical performance of the hyperboloid contact technology with the mechanical features of a spring loaded contact to produce interconnections with improved signal integrity, current density and parametric stability over time.



Tortac®

Tortac® is the evolution of Hypertac hyperboloid contact design dedicated to high density connectors. Tortac® sockets have an external diameter of 0.8 mm to achieve 1.27 mm pitch, square grid, contact density allowing up to 60 ways per cm².



Spring Probe

Spring probe technology from our sister organisation Interconnect Devices, Inc. (IDI), a leading provider of spring contact probes, covers pitches from 0.4 mm to over 1.27 mm, with compressed lengths starting from under 2 mm, ideal for high density, board-to-board, battery contact, and high frequency applications.



Stamped

Hypertac's stamped contacts on reels for crimping machines with automatic feeder lines are interchangeable and intermateable with our turned contacts. In the contact area all single contact flaps are made in a circle shape which guarantees "wire quality".



High Speed

Hypertac's ruggedized contact system is designed especially for the transmission of Ethernet high-speed signals required in harsh environment applications.

The use of the Hypertac hyperboloid technology guarantees excellent integrity and high reliability.



High Power/High Temperature

Hypertac range includes high power (up to 1200A) and high temperature (up to 250°C) resistant versions of the ultra reliable hyperboloid contact, ideal for mission critical interconnect systems within harsh environments.

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