

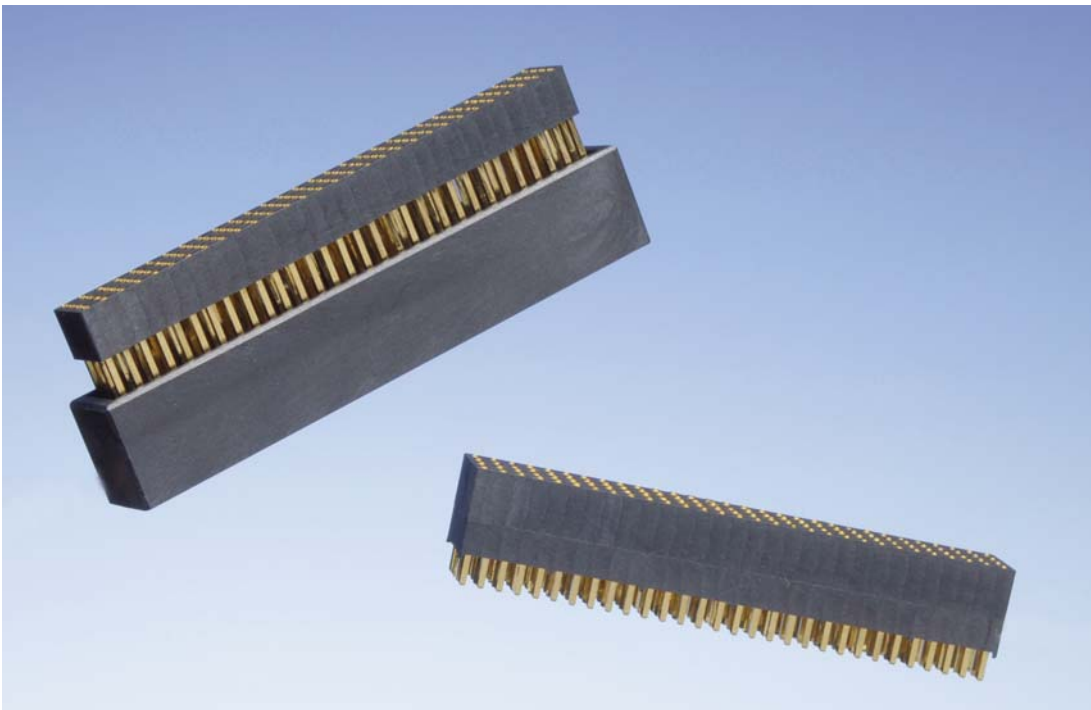
*When failure is not an option.*



*Product Review*

# **PC/104+ Connectors**

*Interchangeable with PC/104 COTS Systems*



*Immune to Shock and  
Vibration Fretting*

*Hypertac® Contacts  
Provide High Reliability*

*High-temp LCP  
Insulator Meets NASA  
Outgassing  
Requirements*

*Standard Footprint*

*Compliant with All  
Current PCI-104  
Standards*

## **PC/104+ Connectors Overcome the Challenges of Harsh Environments.**

PC/104+ board stacking connectors utilize the unique Hypertac contact system which improves the performance of the PC/104 platform by providing immunity to shock and vibration fretting, allowing for matched impedance and better signal integrity. The capabilities of Hypertronics' ruggedized PC/104+ exceed all prior requirements for the form factor - PC/104-based platforms can now be used in a greater range of industries and applications.

The traditional stackable design eliminates the need for backplanes or metal card cages found throughout the range of embedded computing devices used in military systems. Hypertronics'

PC/104+ is interchangeable with PC/104+ COTS products and provides engineers with a high performance and highly reliable interconnect solution for their applications. PC/104+ will improve the performance and reliability of all current PC/104 bus architectures in existing applications while establishing a higher standard for the industry.

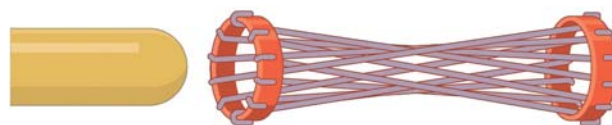
The contacts are housed in an LCP plastic insulator which exceeds the NASA space requirement for outgassing. Space applications require a higher level of shock and vibration performance and the ruggedized PC/104+ enables engineers to achieve this goal. PC/104+ is a highly engineered product designed specifically to allow for top signal integrity under all dynamic environmental conditions, which makes it a perfect fit for those applications where failure is not an option.

# PC/104+ Connectors

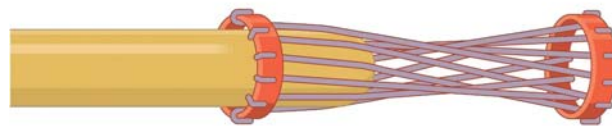
## Hypertac Contact System

### Features

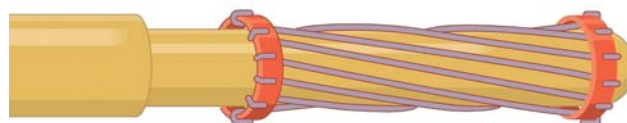
- The PC/104+ connector is designed to support ruggedized applications while complying with the specification proposed by the PC/104 Embedded Consortium
- Contact tails incorporate a unique cross-section which allows for both press-fit and solder termination
- The PC/104+ connector is available in both stack-through and non-stackthrough versions
- 2mm centerline, 4 x 30 contact grid (120 total positions)



Wire sleeve before insertion of pin



Pin partially inserted into sleeve



Pin completely inserted into sleeve

### General Specifications

Part Number Reference	Stackthrough: KS120-0004; Non-stackthrough: KS120-0003
Design Criteria	PC/104-Plus Specification Version 2.0, November 2003
Contact Mating Diameter	0.40mm (016")
Current Rating	1 Amp continuous
Contact Resistance	< 8 milliohms
Contact Insertion Force	1.28 oz. maximum (per contact)
Contact Extraction Force	1.6 oz. maximum (per contact)
Contact Life Cycle	Up to 100,000 mating cycles
Breakdown Voltage Between Contacts	1950 V maximum
Operating Voltage	1463 V maximum
Material and Plating (Contacts)	Socket End: Beryllium copper wires and brass body components. 50 micro inches of gold over nickel on wires, gold flash over nickel on all other socket components Tail (Mating) End: Phosphor bronze. 50 micro inches of gold over 50 micro inches of nickel
Shock and Vibration (Contacts)	Vibration testing to MIL-DTL-55302 para. 4.5.10. Shock testing to MIL-SDTL-55302 para. 4.5.14
Insulation Resistance	> 5000 megohms at 500 VDC
Insulator Material	30 % glass-filled LCP (meets NASA outgassing specification)
Flammability Rating	UL94-V0
Operating Temperature	-55°C to + 125°C
Suggested PCB Mounting Hole Diameter (Plated)	.035 ± .003 (in.) 0.88 ± 0.08 (mm.)



### Hypertronics Corporation

16 Brent Drive  
Hudson, MA 01749-2978  
Toll Free: 1-800-225-9228  
Phone: +1 978-568-0451  
Fax: +1 978-568-0680  
www.hypertronics.com

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