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Introducing (HSR) Connector

# **High Speed Ruggedized** High Performance Backplane Connector System



# **High Speed** Ruggedized Connector





## DESCRIPTION

High Speed Ruggedized (HSR) is a high speed, high power and rugged aerospace and defense LRU/LRM board connector system.

### **APPLICATIONS**

Ground base stations and communications systems

Central computing, satellite on-board and ship-board computing

Land and sea anti-ballistic signal processing

Heads-up avionics

Ground sensor

Unmanned central

processing

Electronic countermeasure

Power distribution systems

## **KEY FEATURES**

Shock and vibration per VITA 47

Temperature range: -65°C to +125°C

Durability:

500 cycles

Common insert/shell geometry enables multiple configurations		
High performance up to 10 Gb/s - High power contact 15 A/contact		
Rugged metal shell with integral guidance hardware		
Configurations: - 120 pair differential pairs max./connector - 240 open field signal contacts max./connector - 32 SMPM RF connectors max./connector - 32 position power contacts max./connector		
Hybrids available - Mix multiple inserts:- 30 pair differential module- 60 open pin field module- 8 power contacts module- 8 position RF coax module- Optics- 8 position RF coax module		
Vertical and right-angle press fit		
Dual beam contact design		
Replaceable signal pins (backplane connector only)		
Panel mount available		
Easy mate/unmate with provided guiding hardware and keying		
Level II maintenance ESD protection for signal modules		
Card pitch .9"		
Board-to-board and flex-to-board available		
MATERIALS		

Shell:	Aluminum, electroless nickel plate	
Housing:	Glass filled polyester, 94V-0 rated or LCP	
Contact material:	Copper Alloy	
Contact area finish:	1.2 μm Au min. over 1.3 μm Ni min.	
Concellant wire finisks		
Compliant pin finish:	.8 μm Sn/Pb. or matte tin min. over 1.3 μm Ni min.	
MECHANICAL		

Mother board connector	•
Part Number 2000668-1	l

Daughter card connector

Part Number 2000667-1

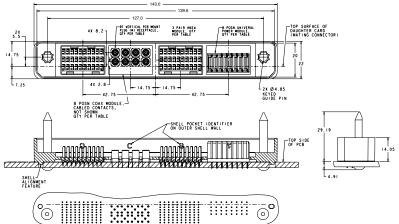


**RF** Cable assemblies available with SMPM, SMP, OSP, OSSP, SMA, MCX and more....

ESD protection: Insulation resist

Dielectric withst

Current:



Dimensions shown for reference purposes only. Specifications subject to change.

# **High Speed** Ruggedized Connector

## **ELECTRICAL CHARACTERISTICS**

Differential Pair: High Speed Differential Applications up to 10 Gb/s Data Rates:		
Differential impedance:	100 $\Omega$ ± 10% with 50 ps risetime (20-80%) pulse	
Crosstalk:	Full density multiple aggressors	
NEN <3% with 100 ps risetime pulse, FEN <3% with 100 ps risetime pulse		
Insertion loss:	<1 dB @ 3 GHz	
Open field signal contact:	Single end impedance 50 $\Omega$	
RF Coax SMPM connector:	Impedance: 50 ohms Insertion Loss: IL = .12 dB max. SVWR = 1.5 Max. @ 6 GHz	
ESD protection:	Max. ESD voltage ±26 kV	
Insulation resistance:	1000 megohms	
Dielectric withstanding voltage:	650 VAC	
Ratings:		
Current:	15 A/contact for power contacts 0.7 A/contact for signal contacts	
Operating Voltage:	250 VAC maximum, signal or power to ground	
3 7 15.75 15.75 Shell Pudat Lidentifier 127.0		

