

Introducing High Speed Ruggedized (HSR) Connector

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

Common insert/shell geometry enables multiple configurations

High performance up to 10 Gb/s - High power contact 15 Amp/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
- 8 power contacts module
- Optics
- 60 open pin field module
- 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, 94 V-0 rated or LCP

Contact material: Copper Alloy

Contact area finish: 1.2 μm Au min. over 1.3 μm Ni. min.

Compliant pin finish: .8 μm Sn/Pb. or matte tin min. over 1.3 μm Ni. min.

MECHANICAL

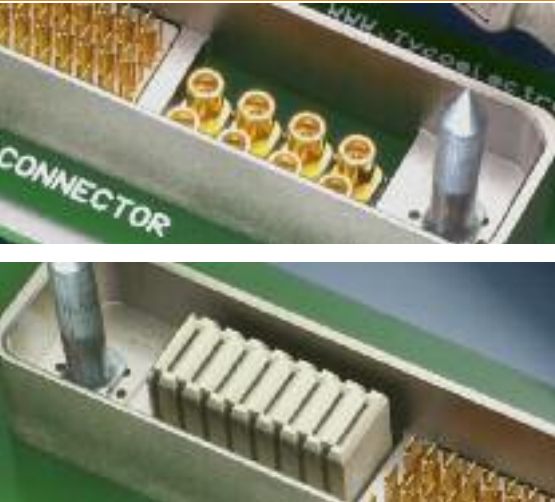
Shock and vibration per VITA 47

Durability: 500 cycles

Temperature range: -65°C to +125°C

High Speed Ruggedized Connector

ELECTRICAL CHARACTERISTICS



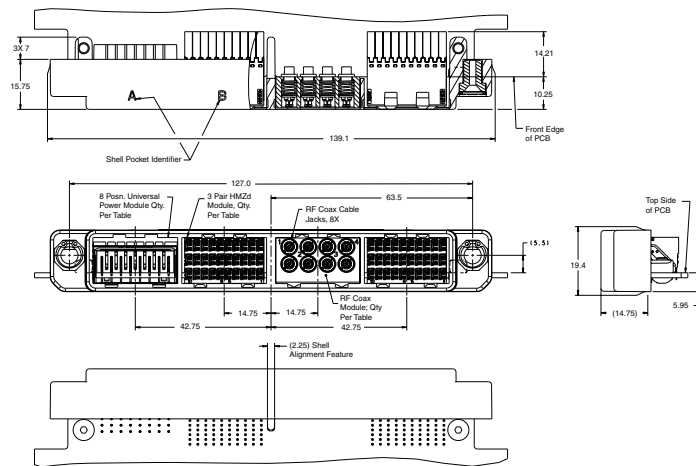
Differential Pair: High Speed Differential Applications up to 10 Gb/s Data Rates:

Differential impedance:	100Ω ±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 50Ω
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:	1,000 megohms
Dielectric withstanding voltage:	650V AC

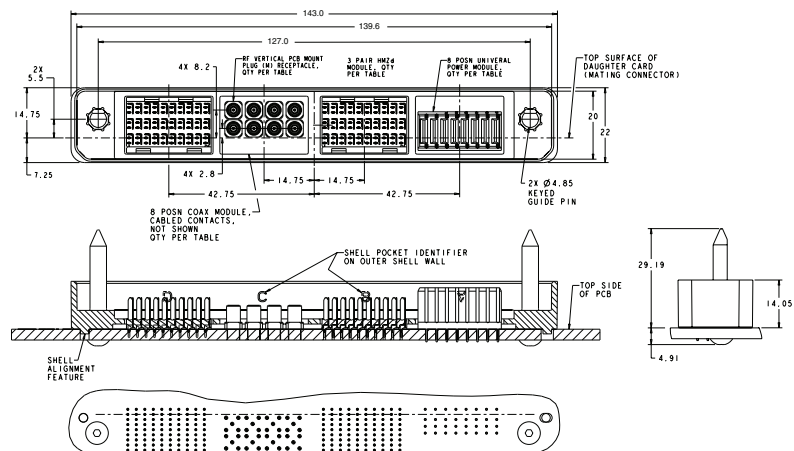
Ratings:

Current:	15 Amp/contact for power contacts 0.7 Amp/contact for signal contacts
Operating Voltage:	250 VAC maximum, signal or power to ground

Daughter card connector
Part Number 2000667-1



Mother board connector
Part Number 2000668-1



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

FOR MORE INFORMATION

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