

WHEN SIGNAL INTEGRITY AND DENSITY MATTER

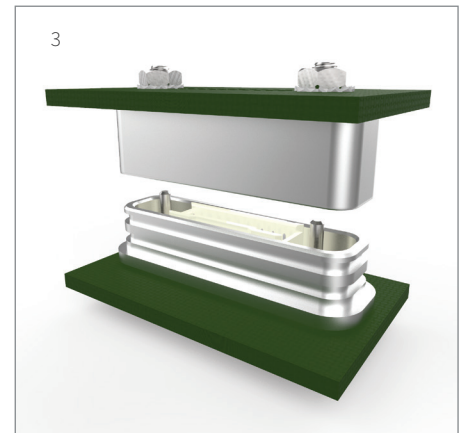
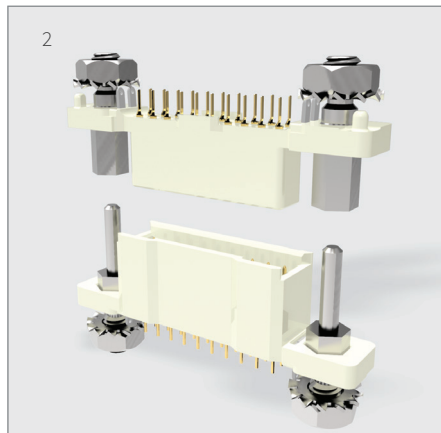
Carlisle Interconnect Technologies' (CarlisleIT) AltaVel™ family of open pin field High Speed Digital (>25 Gbps) Interconnect is optimized to provide scalability and reliability in dense, high-mate/de-mate cycles applications.

The broad family of connectors are available in the following configurations; Board to Board, Board to Cable, Cable to Cable and Cable to Panel. All configurations are available in the following styles: Vertical to Vertical, Right Angle to Vertical and Right Angle to Right Angle.

These standard connectors are part of CarlisleIT's full lineup of cost-effective, off-the-shelf and customizable interconnect solutions delivering superior signal integrity performance and value. **This product available Q1 2019.**

FEATURES & BENEFITS

Feature	Customer Benefit
10,000 mate/de-mate cycles	High signal integrity and reliability in a long life package ensures high performance and lower cost of ownership
Flexible, scalable design	High density, scalable design provides multiple configurations, enabling optimum performance at the lowest total cost. Size ranges from 10 to 200 pins; configurable in 1 to 4 rows by 10, 20, 30, 40, or 50 positions. Configurable by Pin/Spacer height, 8mm, 12mm, 16mm, and 20mm.
With or without metal shells	Rugged/EMI housing option is a readily available option for applications used in extreme environments
Open pin field design	Design allows for flexibility in routing and coding schemes, including: single-ended, differential pair, power, ground, and sideband signals
Impedance: » Differential - 85 and 100 ohm » Single ended - 50 and 75 ohm	Multiple impedance options ensures a solution to meet your application
Board mounting options	Termination style options: Surface Mount (SMT), Paste In Hole (PIH), and Through Hole (PTH).



Available contact and connector systems: 1) High reliability contact system featuring 3 points of contact. Available in SMT, Paste in Hole, and Printed Through Hole termination styles. 2) connector without metal shell, 3) connector with metal shell.

SUGGESTED APPLICATIONS

- » High speed digital boards and systems
- » High speed digital HW and system verification
- » Defense and space
- » Network systems
- » Servers & storage – blade and rack mount
- » Switches
- » Routers
- » Optical transport carrier grade optical
- » Wireless infrastructure

AVAILABLE Q1 2019

SPECIFICATIONS & PERFORMANCE

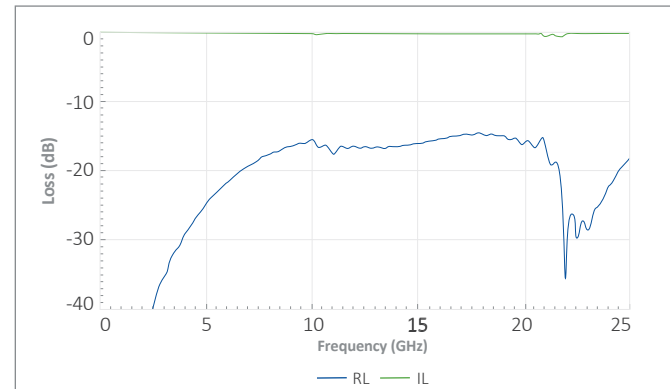
Parameter	Specification
Insertion Loss	<0.8 dB to 26GHz (interconnect only)*
Data Rate	FDR - 14Gb/s, EDR - 28Gb/s & PCIe Gen4 - 16Gb/s, PCIe Gen5- 32Gb/s
Impedance	85 or 100 ohm differential impedance; 50 or 75 ohm single-ended impedance
Contact Rating	3 amp max, at ambient with 30° rise
Operating Temperature	-55° C to +125° C
Minimum Contact Wipe	1 mm (0.039") typical
Contact Mating Force	40 grams typical
Insulation Resistance	5,000 megaohms minimum @ 500 VDC
DC Resistance (mated pair)	8.5 milliohm @ 8mm stack height
Durability	Min 1,000 cycles and up to 10,000 mate/demate cycles
Sinusoidal Vibration	20g (EIA-364-28, condition IV)
Shock	50g (EIA-364-27, condition E)
Operating Voltage	200 V, RMS, 60 Hz typical

*Simulated data only

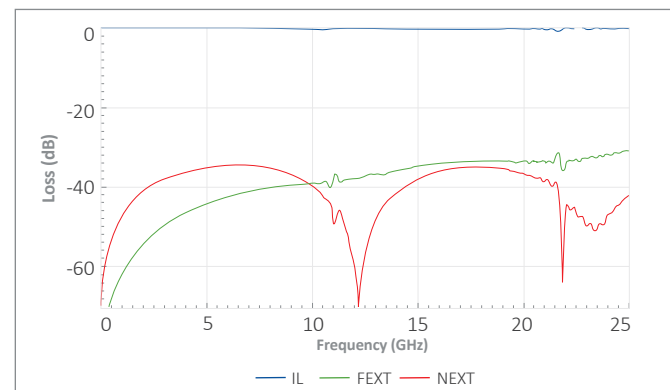
Materials & Finishes

Pin Contacts	BeCu per ASTM B194, plated 30 - 50 µin gold over 100 µin nickel minimum in mated contact area, 5 µin gold over 100 µin nickel on tails
Socket Contacts	BeCu per ASTM B194, plated 30 - 50 µin gold over 100 µin nickel minimum in mated contact area, 5 µin gold over 100 µin nickel on tails
Contact Finish	Localized gold finish per ASTM B488 over nickel per ASTM B689 Type 1
Molded Insulators	30% glass-filled LCP per ASTM D5138
Hardware	Stainless steel
Shell (ruggedized)	Aluminum alloy
Finish (ruggedized)	Nickel plated
RoHS Compliant	Yes
Solderable:	Lead or lead-free

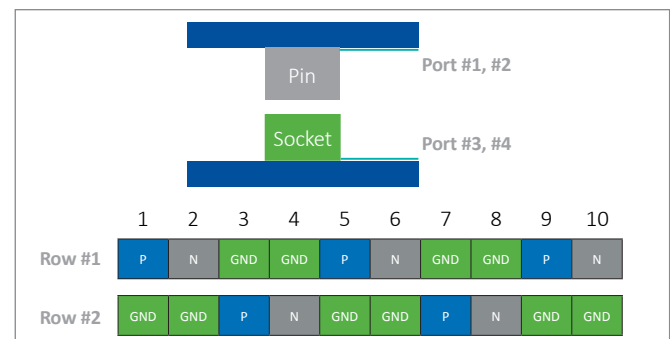
Insertion and Return Loss (Simulated)



Crosstalk (Simulated)



Test Setup — Differential Simulation included Footprint and Break-out Region + 6mm



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CarlisleIT.com/products/test-measurement

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