

# Double Density Cool Edge 0.80mm Connectors

## HIGH SPEED SPACE–SAVING HYBRID CONNECTOR FOR BOARD–TO–BOARD APPLICATIONS

The 0.80mm pitch Double Density Cool Edge connectors offer a compact design with 2 rows of contacts. This highly configurable single piece connector can accommodate both high speed and low speed signal and power. This hybrid connector reduces more than half of the PCB footprint when compared to 1.00mm PCIe Cool Edge. It supports PCIe Gen 5 and is designed for multiple Add-In-Card thicknesses.

- Provide options for 1.60mm and 2.36mm AIC
- Hybrid configuration with differential, single-ended and power pin options
- High speeds of up to 32GT/s (or 56GT/s PAM4) capability
- Saves much more space than most of the card edge connectors in market
- 76 to 428 contacts

### FEATURES

- 0.80mm pitch
- 2A per pin for power application
- 0.5A per pin for signal application
- Signal pins options from 76 to 428
- Hybrid configurations
- Accommodates 1.60mm and 2.36mm thick mating boards
- Optimized contact design to meet 32Gb/s
- Special power contact design
- Compact connector design
- Cable solution is available



### TARGET MARKETS



### BENEFITS

- Support high density hybrid applications
- Support maximum 70 lanes per connector
- Allows flexible power-signal combinations
- Supports most of the standard AIC applications
- Meets next generation signal speed requirements
- Can carry more than 2A per pin
- Shortened trace lengths compared with standard cool edge connectors
- Increased system interconnect flexibility

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### TECHNICAL INFORMATION

#### MATERIAL

- Contact Base Metal: Copper alloy
- Contact Area Finish: Gold over nickel
- Solder Area Finish: Tin over nickel
- Housing: High temperature thermoplastic (UL 94V-0)

#### ELECTRICAL PERFORMANCE

- Contact Resistance: (Initial) 30mΩ max., 15mΩ max. change after test
- Current Rating: 2A per pin for power application/0.5A per pin for signal application with temperature rise not exceeding 30°C
- Dielectric Withstanding Voltage: 500V
- Operating Voltage: 12V DC (for special requirements, please contact us)

#### MECHANICAL PERFORMANCE

- Durability: 100 mating cycles
- Mating Force: 0.38N/pin max. for signal pin
- Unmating Force: 0.03N/pin min. for signal pin

#### ENVIRONMENTAL

- Temperature Life: 105±2°C for 240 hours per EIA 364-17
- Thermal Shock: 10 cycles between -55°C to +85°C per EIA 364-32
- Humidity: 24 cycles between 25±3°C at 80±3% RH and 65±3°C at 50±3% RH per EIA 364-31
- Mixed flow gas
- Operating Temperature Range: -55°C to +105°C
- Storage Temperature Range: -15°C to +55°C

#### APPROVALS AND CERTIFICATIONS

- RoHS compliant

#### PACKAGING

- Tray
- Tape & Reel (support less than 284pin)

#### TARGET MARKETS/APPLICATIONS



Baseband  
Commercial Systems  
Networking  
Radio Units  
High-end Computing System  
Server and Storage Systems



High-end Computing System  
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## PART NUMBER SELECTOR – CABLE CONNECTOR

