Cool Edge 0.80mm Hybrid Power & Signal Connectors

HYBRID CONNECTOR FOR VERSATILE BOARD–TO–BOARD APPLICATIONS

Cool Edge Hybrid Power and Signal connectors provide one–piece high speed and high power card–edge package. These versatile solutions address multiple standards like PCIe, SAS/SATA, and offer multiple BTB configurations such as mezzanine, coplanar and midplane/backplane. Moreover, the connectors are designed as Open Pin Field and are hot plug capable. These connectors feature modular tooling that allows multiple power–signal combinations for vertical configurations. It is also available in right angle and straddle mount options.

- Right angle and straddle mount options are available upon request
- Comes with cable–to–board option
- High Speed 0–32 Gb/s (or 56Gb/s PAM4) capability
- Supports multiple impedance systems

TARGET MARKETS

FEATURES

- Power pin pitch at 9.10mm with current rating of 25A per pin
- Signal pin pitch at 0.80mm with current rating of 0.5A per pin
- Power pins from 2 to 6 and signal pins range from 20 to 200
- Through hole power pin termination
- Open pin field design
- Vertical, right angle, and straddle mount configurations for coplanar, mezzanine, and backplane applications
- Built–in guide block option
- Supports 1.6mm thick mating board
- Slimmer form factor than standard PCIe®

BENEFITS

- Supports medium to high power BTB applications
- Supports most mating board applications
- Allows flexible power–signal combinations
- Provides higher power through several power layers
- Supports both single–ended and differential pairs with speeds up to 32Gb/s (or 56Gb/s PAM4)
- Supports multiple applications ranging from ICT to consumer
- Tolerates mis–alignment and facilitates blind–mating conditions
- Supports most standard BTB applications
- Serves as a space–saving alternative compared to the standard

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: 30mΩ max. initial; 15mΩ max. change after test

- Current Rating: 25A per power pin, 0.5A per signal pin with temperature rise not exceeding 30˚C

- Dielectric Withstanding Voltage: 1000V DC for power and 500V DC for signal

MECHANICAL PERFORMANCE

- Durability: 200 mating cycles

- Mating Force: 10N/pin max. for power pin; 0.6N/pin max. for signal pin

- Unmating Force: 1.5N/pin min. for power pin; 0.06N/pin min. for signal pin

SPECIFICATIONS

- Amphenol Product Specification: SCE001

- Amphenol Application Specification: SCE002

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

APPROVALS & CERTIFICATION

- UL

PACKAGING

- Tray/Reel

TOOLING INFORMATION

- Special pin count option available upon request

TARGET MARKETS/APPLICATIONS

Server and Storage Systems
High–end Computing system

Baseband
Radio Units
Networking
Commercial Systems

Mouser Electronics

Authorized Distributor

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CE1016000110111 CE1206000110111 CE1004000110111 CE1212000110111 CE1410000110111
CE1002600110111 CE1005000110111 CE1006000110111 CE1010000110111 CE1008000110111
CE1012000110111 CE1216000110111 CE1218000110111 CE1608000110111 CE1612000110111
CE1204000110111 CE1418000110111 CE1402000110111 CE1420000110111 CE1602000110111
CE1002000110111 CE1020000110111 CE1408000110111 CE1600000110111 CE1617000110111
CE1201800110111 CE1210000110111 CE1214000110111 CE1616000110111 CE1202000110111
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CE1018000110111 CE1406000110111 CE1014000110111 CE1208000110111 CE1404000110111
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