

# Slim Cool Edge 0.65mm Hybrid Power & Signal Connectors

## SPACE-SAVING HYBRID CONNECTOR FOR VERSATILE BOARD-TO-BOARD APPLICATIONS

Slim Cool Edge Hybrid Power and Signal connectors provide one-piece high speed and high power card-edge package. These connectors offer a cost competitive and high density solution. These versatile solutions based on a 0.65mm signal pitch design offer multiple BTB configurations like right angle, mezzanine and coplanar. 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.

- Right angle and straddle mount options are available upon request
- High Speed up to 32GT/s (or 56GT/s PAM4) capability
- Supports multiple impedance systems

### FEATURES

- Power pin pitch at 1.30mm and current rating of 3A per pin
- Signal pin pitch at 0.65mm and current rating of 0.5A per pin
- Power pins from 4 to 12 and signal pins range from 20 to 280
- Offset signal pin with SMT termination
- Open pin field design
- Vertical, right angle, and straddle mount configurations for coplanar, mezzanine, and midplane applications
- Supports 1.6mm thick mating board
- Different BoardLock™ options available
- Provides latch for AIC



### TARGET MARKETS



### BENEFITS

- Supports small power BTB applications
- Supports most mating board applications
- Allows flexible power-signal combinations
- Provides better signal integrity performance
- Supports both single-ended and differential pairs with speeds up to 32GT/s (or 56GT/s PAM4)
- Supports multiple applications ranging from ICT to consumer
- Supports most standard BTB applications
- Allows flexible PCB hold-down option
- Secure locking for AIC or cable plug

### 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: 3A per power pin, 0.5A per signal pin with temperature rise not exceeding 30°C
- Dielectric Withstanding Voltage: 500V DC for power and 500V DC for signal

#### MECHANICAL PERFORMANCE

- Durability: 200 mating cycles
- Mating Force: 1N/pin max. for power pin; 0.6N/pin max. for signal pin
- Unmating Force: 0.1N/pin min. for power pin; 0.06N/pin min. for signal pin

#### ENVIRONMENTAL

- Humidity: 24 cycles between 25±3°C at 80±3% RH and 65±3°C at 50±3% RH. Per EIA 364-31
- 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
- Mixed Flow Gas

#### APPROVALS & CERTIFICATION

- UL

#### SPECIFICATIONS

- Amphenol Product Specification: SSE004
- Amphenol Application Specification: SSE005

#### 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

## PART NUMBER SELECTOR

<b>SE</b>	<b>—</b>	<b>1</b>	<b>X</b>	<b>XXX</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>11</b>	<b>X</b>	<b>Plating Specification</b>
-----------	----------	----------	----------	------------	----------	----------	----------	----------	----------	-----------	----------	------------------------------

  

Power Pin Count (3A/pin)*	
0	0 pins
4	4 pins
8	8 pins
B	12 pins

\*Note: Power pin option for ≤ 200 signal pin

Signal Pin Count	
020	20 pins
040	40 pins
.	
.	
.	
.	
.	
280	280 pins

Mating Card Thickness	
1	1.6mm

Solder Type	
1	SMT for signal and power

Orientation*	
1	Vertical

\*Note: Right angle and straddle mount options are available upon request

3	SMT BoardLock™
6	TH BoardLock™*
2	Latch

\*Note: TH BoardLock™ only for ≥ 200 signal pin

Signal Pin Pitch	
2	0.65mm

Plating Specification	
1	0.76μm Au
2	0.38μm Au
3	Gold Flash

SSIOSLIMCOOL065092EA4