

# 3M™ High-Speed Card-Edge Connector, SPD08

The High-Speed Card-Edge Connector SPD08 is the latest board-to-board offering from 3M. It is suitable for a wide variety of applications in these markets: datacom systems, enterprise servers, telecommunications equipment, defense and test applications.

The SPD08 connector can also be used in several different design applications.

These include:

- Mezzanine board stacking designs requiring transmission of high-speed (up to 15 Gbps), high density, controlled impedance signals
- Wire-to-board designs requiring transmission of high speed signals (up to 25 Gbps)



3M™ High-Speed Card-Edge Connectors, with and without latch

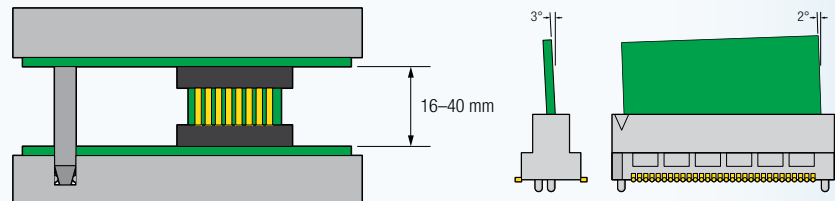
## Key Features and Benefits

### Supports High-speed Board-to-board Connections

- Controlled impedance, crosstalk limiting contact design supports speeds up to 15 Gbps (at 30 mm stack height)
- Embedded ground plane within riser card limits row-to-row crosstalk and enhances signal integrity
- Supports XAUI, PCI Express (Gen 1/2/3), SATA and other application speeds

### Flexible Stacking Height and Robust Connection

- Supports flexible stacking height (16-40 mm) with the use of a PCB intermediate riser card
- Robust contact design is tolerant of misalignment, provides a reliable connection and supports blind mate



### High Density Board Footprint

- High density (0.8 mm pitch), two-row design conserves board space and simplifies trace routing

### Flexible Design Options

- 20-200 contact positions (see availability and standard configuration details in customer drawing 78-5100-2420-7)
- Available with optional latches for robust mechanical stability
- 0.5A current rating per contact for mixed signal and power applications

### Widespread Applicability

- Supports up to 25 Gbps wire-to-board applications using 3M™ Twin Axial Cable terminated to the edge



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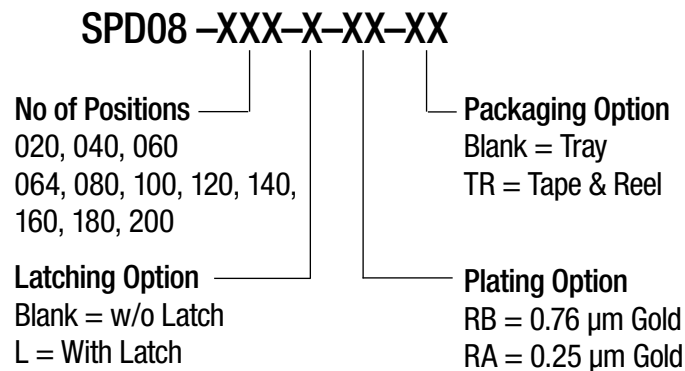
## Specifications and Parameters

Contacts and Solder Tabs	Copper alloy
Finish	3~5 µm matte tin on solder tail; 1.27 µm nickel under plate all over
Housing	Connector: LCP, black, UL 94V-0; Latch: LCP, beige, UL 94V-0
Current Rating	3.0A @ 30°C (single contact); 0.5A per contact
Contact Resistance	50mΩ max
Voltage	50V AC
Characteristic Impedance	For 85 Ohm and 100 Ohm systems
Transmission Rate	7.5 GHz (rated at -2dB insertion loss for 30 mm stack height board-to-board applications)
Temperature	-55°C ~ +125°C

Please contact a 3M Electronic Solutions Division (ESD) Sales Representative for more product information and technical support. Signal Integrity and Environmental Qualification data available upon request.

## Ordering Information

The following parts configurations are available on customer drawing 78-5100-2420-7. Please reference this drawing for additional details and availability.



**Note:** All positions are not tooled. Please refer to the drawing for more information on currently tooled positions.

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