



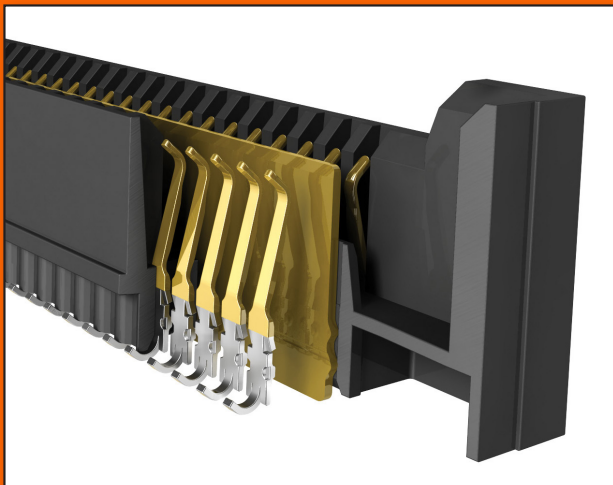
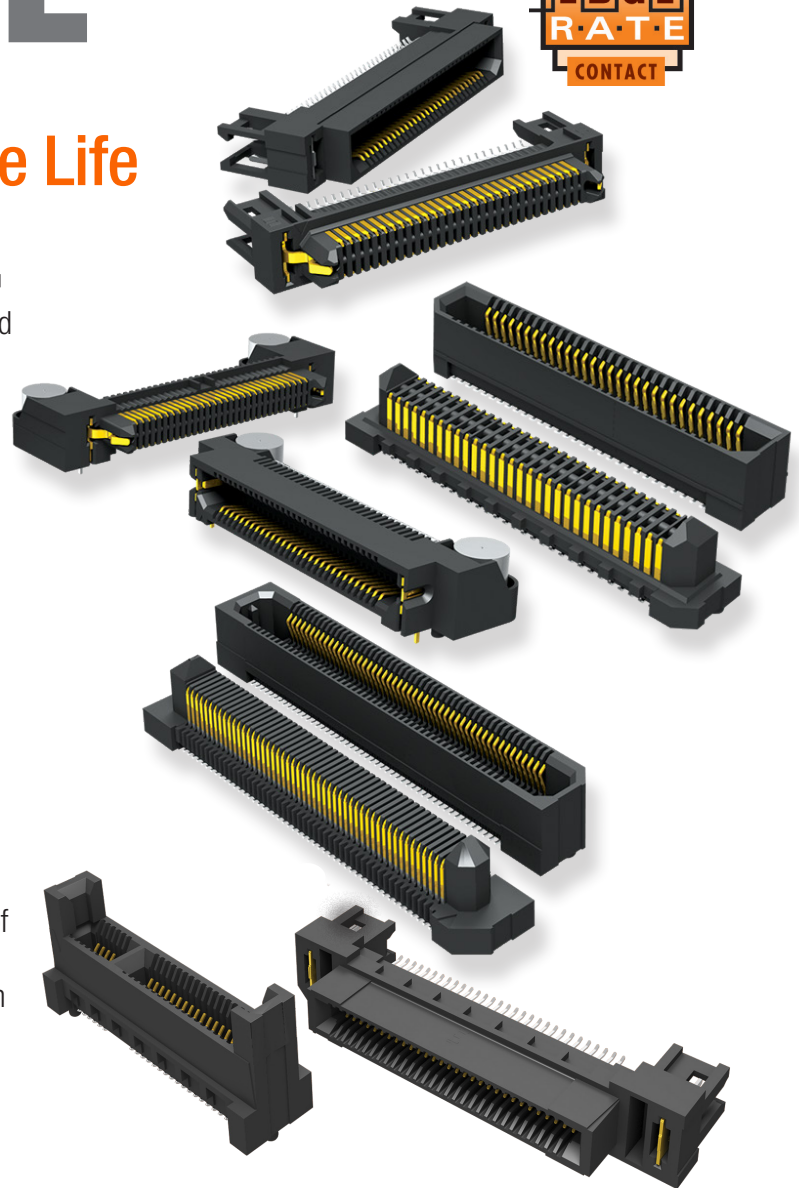
# EDGE RATE™

## Edge Rate Contacts Offer High Speeds and High Cycle Life

Samtec's Edge Rate™ Contact system is designed for high speed, high cycle applications. The surface of the Edge Rate™ contact is milled creating a smooth mating surface area instead of a stamped contact that mates on a cut edge. This smooth mating surface reduces the wear tracks on the contact increasing the durability and cycle life of the contact system. It also lowers insertion and withdrawal forces allowing the connectors to be zippered when unmating.

In addition to increased durability and extended cycle life, the Edge Rate™ contact has superior electrical performance compared to most stamped contacts. The Edge Rate™ contacts are positioned in the plastic insulator so the narrow edges of the pins are parallel to each other. This minimizes the parallel surface area reducing broadside coupling and crosstalk.

Additionally, Edge Rate™ contacts expand the electrical benefits to include impedance matching. The intricate details of the contact geometry are designed, simulated, and optimized electrically for 50Ω and 100Ω systems given the contact pitch and appropriate grounding schematics.

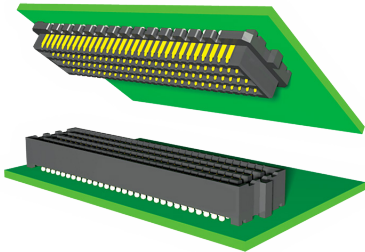


### Features:

- Controlled impedance Edge Rate™ contacts optimize signal integrity by minimizing broadside coupling and crosstalk.
- Robust when “zippered” during unmating
- Vertical and right angle connectors on 0,50 mm and 0,80 mm pitch
- High speed edge card connectors for rugged micro backplane applications
- Floating contact system compensates for tolerance build-up and misalignment with “float” in X and Y directions

## HIGH SPEED SYSTEMS

### SEARAY™

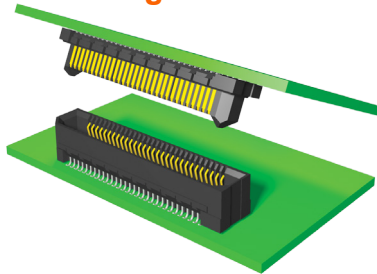


### SEAM/SEAF

#### High Speed/High Density Array

Pitch: .050" (1,27 mm)  
Total Positions: 40 - 150  
Stack Height (mm): 7-17,5  
Performance: Single Ended - 12.5 GHz  
(7 mm Stack Height)  
Differential Pair - 13 GHz  
(7 mm Stack Height)  
Orientation: Vertical and Right Angle

### Edge Rate™

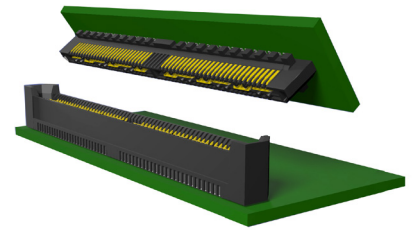


### ERM8/ERF8

#### High Speed Edge Rate

Pitch: 0,80 mm (.0315")  
Total Positions: 10 - 150  
Stack Height (mm):  
7, 9, 10, 12, 13, 14, 15, 16  
Performance: Single Ended - 12 GHz  
(7 mm Stack Height)  
Differential Pair - 15 GHz  
(7 mm Stack Height)  
Orientation: Vertical, Right Angle, and  
Edge Mount

### Q RATE®



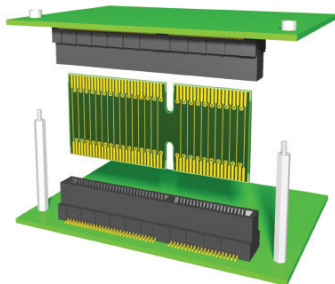
### QRM8/QRF8

#### High Speed Edge Rate™ with Integral Ground Planes

Pitch: 0,80 mm (.0315")  
Total Positions: 52 - 156  
Stack Height (mm):  
7, 9, 10, 12, 14  
Performance: Single Ended - 8.5 GHz  
(7 mm Stack Height)  
Differential Pair - 10 GHz  
(7 mm Stack Height)  
Orientation: Vertical and Right Angle

## EDGE CARD SYSTEMS

### High Speed Edge Card

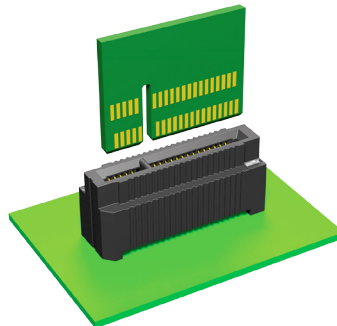


### HSEC8

#### High Speed Edge Card

Pitch: 0,80 mm (.0315")  
Total Positions: 18 - 120  
Mates with: 1,60 mm (.062") cards  
Performance: Single Ended - 9 GHz  
(7,98 mm Stack Height)  
Differential Pair - 14 GHz  
(7,98 mm Stack Height)  
Orientation: Vertical, Right Angle, and  
Edge Mount

### Low Cost High Density Edge Card

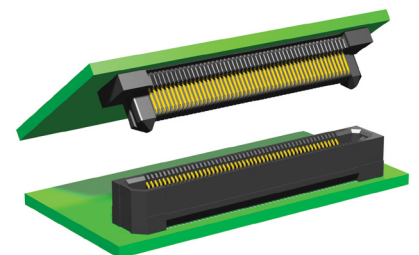


### BEC5C

#### Low Cost High Density Edge Card

Pitch: 0,50 mm (.0197")  
Total Positions: 80 - 140  
Mates with: 1,60 mm (.062") and  
2,40 mm (.094") cards  
Orientation: Vertical

### High Speed Edge Rate™



### ERM5/ERF5

#### High Speed Edge Rate™

Pitch: 0,50 mm (.0197")  
Total Positions: 20 - 150  
Stack Height (mm): 7, 9, 10, 11, 12  
Performance: Single Ended - 13.5 GHz  
(7 mm Stack Height)  
Differential Pair - 20 GHz  
(7 mm Stack Height)  
Orientation: Vertical and Right Angle