

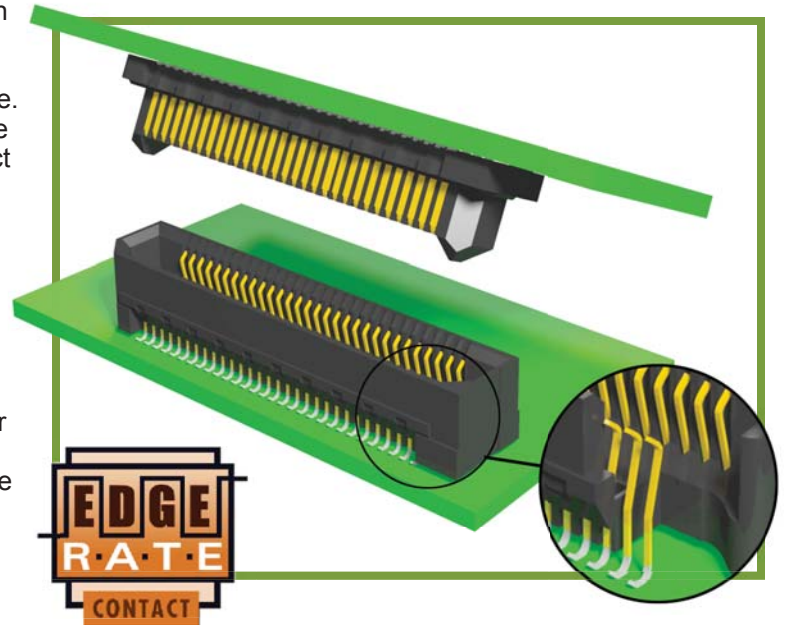
# Edge Rate™

## Formed Edge Rate™ contacts offer high speeds and high cycle life


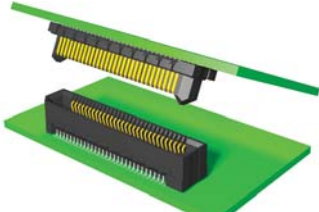
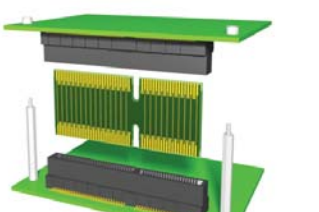
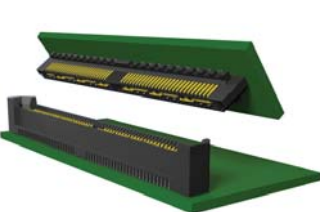
Samtec's Edge Rate™ Contact system is designed for high speed, high cycle applications. The surface of the Edge Rate™ contact is milled creating a smooth mating surface area instead of a stamped contact that mates on a cut edge. This smooth mating surface reduces the wear tracks on the contact increasing the durability and cycle life of the contact system. It also lowers insertion and withdrawal forces allowing the connectors to be zippered when unmating. Click [here](#) to find out more about how the Edge Rate™ contact system compares to stamped or cut contacts.

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. For example, the [ERM8/ERF8](#) Series, a .8mm pitch dual in-line strip connector, is rated at 10.5 GHz / pair at -3dB insertion loss.



Samtec product series that utilize Edge Rate™ contacts include:

SEARAY™	Edge Rate™	High Speed Edge Card™	Q RATE™
			
<b>SEAM/SEAF</b>	<b>ERM8/ERF8</b>	<b>HSEC8</b>	<b>QRM8/QRF8</b>
<b>High Speed/High Density Array</b>	<b>High Speed Edge Rate</b>	<b>High Speed Edge Card</b>	<b>High Speed Edge Rate with Integral Ground Planes</b>
<ul style="list-style-type: none"><li>• <b>Rows:</b> 4, 5, 6, 8, 10</li><li>• <b>Centerline:</b> .050" (1.27mm)</li><li>• <b>Positions:</b> 15, 20, 30, 40, 50 per row</li><li>• <b>Stack Height (mm):</b> 7-17.5</li><li>• <b>Orientation:</b> Vertical and Right Angle</li></ul>	<ul style="list-style-type: none"><li>• <b>Rows:</b> Dual</li><li>• <b>Centerline:</b> .8mm (.0315")</li><li>• <b>Positions:</b> 5, 10, 13, 20, 25, 30, 40, 50, 60, 70, 75 per row</li><li>• <b>Stack Height (mm):</b> 7, 9, 10, 12, 14, 16</li><li>• <b>Orientation:</b> Vertical, Right Angle, and Edge Mount</li></ul>	<ul style="list-style-type: none"><li>• <b>Rows:</b> Dual</li><li>• <b>Centerline:</b> .8mm (.0315")</li><li>• <b>Positions:</b> 10, 13, 20, 25, 30, 37, 40, 49, 50, 60 per row</li><li>• <b>Mates with:</b> 1.6mm (.062") cards</li><li>• <b>Orientation:</b> Vertical and Edge Mount</li><li>• <b>Status:</b> Currently In Design</li></ul>	<ul style="list-style-type: none"><li>• <b>Rows:</b> Dual</li><li>• <b>Centerline:</b> .8mm (.0315")</li><li>• <b>Positions:</b> 26, 52, and 78 per row</li><li>• <b>Stack Height (mm):</b> 7 and 10</li><li>• <b>Orientation:</b> Vertical and Right Angle</li><li>• <b>Status:</b> Currently In Design</li></ul>

Other Edge Rate™ product series include [IJ5/IP5](#) (Isolated Transmission Line Interconnects), [HSF8](#) (High Speed Flex Data Link) and [ERCD](#), [EPLSP](#), [ERI8](#), and [EEDP](#) (High Speed Data Rate Cable Systems). For more information, contact our Signal Integrity Group at [SIG@samtec.com](mailto:SIG@samtec.com).

