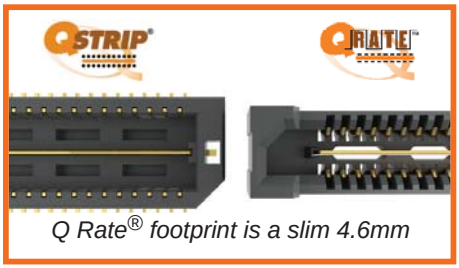
Q Rate®

New design improves electrical performance, allows smaller PCB footprint, and creates a more robust interconnect

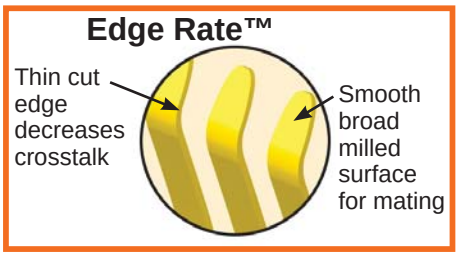
Q Rate® is Samtec's next generation of high speed, controlled impedance interconnects. The rugged Edge Rate™ contact system combined with an integral ground/power plane provides superior electrical performance while minimizing PCB real estate with its slim body design. Q Rate® (QRM8/QRF8 Series) is



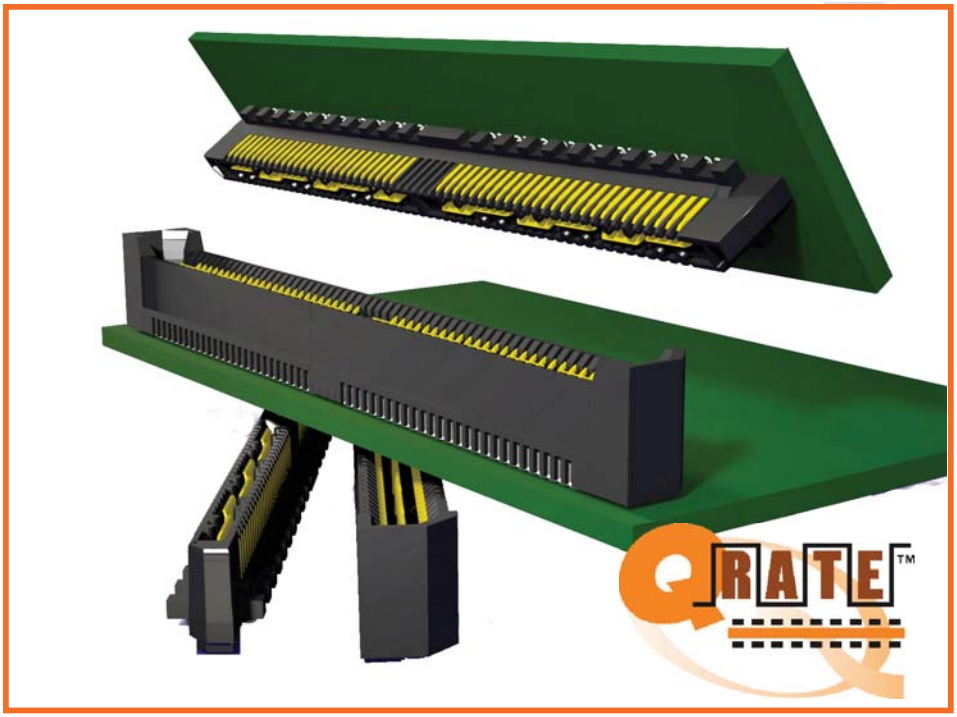
Q Rate® footprint is a slim 4.6mm

rated at 9.5 GHz per pin in a single-ended confirguration, at a -3dB insertion loss, at a 7mm stack height.

This performance is achieved because Edge Rate™ contacts are positioned in the plastic insulator so the broad surface is the point of

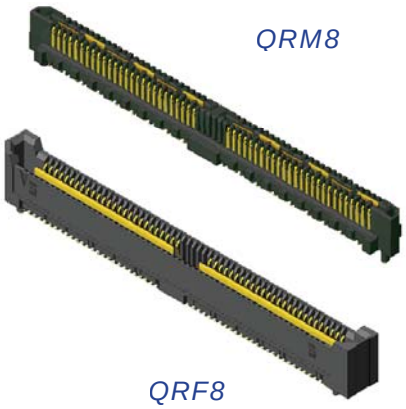


contact with the mating pin, and the narrow edges of the contacts are parallel to each other. Minimizing the parallel surface areas of the pins minimizes the effects of broadside coupling, which decreases crosstalk between adjacent contacts. Compared to the original Q Strip®, the contacts in the Q Rate® system are positioned closer to ground plane. This means the ground plane in the Q Rate® system has more electrical impact than the ground plane in the first generation Q Strip® products. The robust Edge Rate™ contacts



feature a long 1.2mm contact wipe distance which improves the allowable angle during mating and unmating. Likewise, because the mating edge of the contact is the smooth, broad, milled surface compared to the rough, cut surface of other contact systems, the wear-life of the system is improved (i.e., more cycles). Q Rate's® integral metal plane can be used for ground or power, is rated up to 8.9 amps, and features a slim footprint.

For more information, feel free to contact our Signal Integrity group at SIG@samtec.com. To view our Q Rate® Video click here.



QRM8/QRF8

- **Performance at 7mm stack height:**
  - 9.5 GHz/pin (single-ended)
  - 8.5 GHz/pair (differential pair)
  - -3dB insertion loss
- **Ideal For:** High speed, high cycle life, and applications with limited PCB real estate
- **Rows:** Dual
- **Positions:** 26, 52, or 78 per row
- **Centerline:** .8mm (.0315")
- **Stack Height:** 7mm and 10mm
- **Orientation:** Vertical (right angle in development)
- **Contact Wipe:** 1.2mm
- **Status:** Released