GROUND PLANE CONNECTORS

RELIABLE SI PERFORMANCE • LOW-PROFILE • SLIM FOOTPRINT

INTEGRAL GROUND/POWER PLANE
• Surface mount ground plane between two signal rows improves electrical performance
• Significantly reduces row-to-row crosstalk
• Integral metal plane for power to 25 Amps

FEATURES

- Differential pairs reduce noise
- Mixed technology (MIT/MIS)
- Options for power, retention & RF

QTH/QSH
5 mm stack height shown

samtec.com/qseries
LOW PROFILE GROUND PLANE CONNECTORS

- 0.50 mm, 0.635 mm and 0.80 mm pitch
- 5 mm to 25 mm stack heights
- Integral ground/power plane
- Compatible with mPOWER® (UMPT/UMPS) for power/signal flexibility
- Differential pairs and edge mount options available

SLIM GROUND PLANE CONNECTORS

- 0.80 mm pitch and 1.20 mm contact wipe
- Edge Rate® contacts optimized for superior signal integrity performance
- Right-angle available for coplanar and perpendicular mating
- Compatible with mPOWER® (UMPT/UMPS) for power/signal flexibility

RUGGED GROUND PLANE CONNECTORS

- 0.635 mm pitch
- Increased insertion depth for rugged applications
- Up to 156 signal pins/48 signal pairs standard
- Vertical, right-angle and edge mount
- Shielded systems available (QMSS/QFSS)
- Compatible with mPOWER® (UMPT/UMPS) for power/signal flexibility
EDGE RATE® CONTACT

EDGE RATE® CONTACT SYSTEM:
- Smooth milled mating surface reduces wear and increases durability
- Lower insertion and withdrawal forces
- Robust when “zippered” during unmating
- Minimized parallel surface area reduces broadside coupling and crosstalk
- Designed, simulated and optimized for 50 Ω and 100 Ω systems

STACK HEIGHT FLEXIBILITY
(Size in mm)

ERM8/ERF8
Right-angle with latching shown

samtec.com/edgerate
**0.80 mm PITCH SYSTEM**

- 1.5 mm contact wipe for a reliable connection
- Differential pair and hot swap options
- Stack heights from 7 mm to 18 mm
- Supports high-speed protocols including Ethernet and PCI Express®
- Right-angle and edge mount available

**ERM8/ERF8**

![Rugged 360° shielding and metal latching options](image)

![Compatible with mPOWER® (UMPT/UMPS) for power/signal flexibility](image)

**0.635 mm PITCH SYSTEM**

- Extremely slim 2.5 mm body width
- Up to 120 positions in a 2-row design
- 5 mm stack height (others in development)

**ERM6/ERF6**

![ERF6 shown at 40 total positions (size in mm)](image)

**0.50 mm PITCH SYSTEM**

- 1.00 mm contact wipe
- Up to 40% PCB space savings with 0.50 mm pitch vs. 0.80 mm pitch
- Stack heights from 7 mm to 12 mm
- 20 to 150 total positions

**ERM5/ERF5-RA**

![Compatible with mPOWER® (UMPT/UMPS) for power/signal flexibility](image)

samtec.com/edgerate