Rosenberger

High-Power Connectors with Minimum Dimensions

P-SMP®

INTERCONNECT



P-SMP®

High-Power RF Connectors with Minimal PCB Spacing

The P-SMP® (Power SMP) series is designed for high-power RF applications that require maximum power handling while maintaining minimal board-to-board spacing.

The series combines:

- Compact design and low board-to-board spacing of the SMP series
- SMA-like power handling capability



Frequency range up to 10 GHz



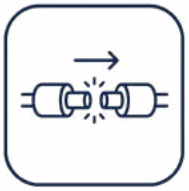
Continuous power up to 200 W @ 2.7 GHz



Board-to-board distance down to 12.6 mm



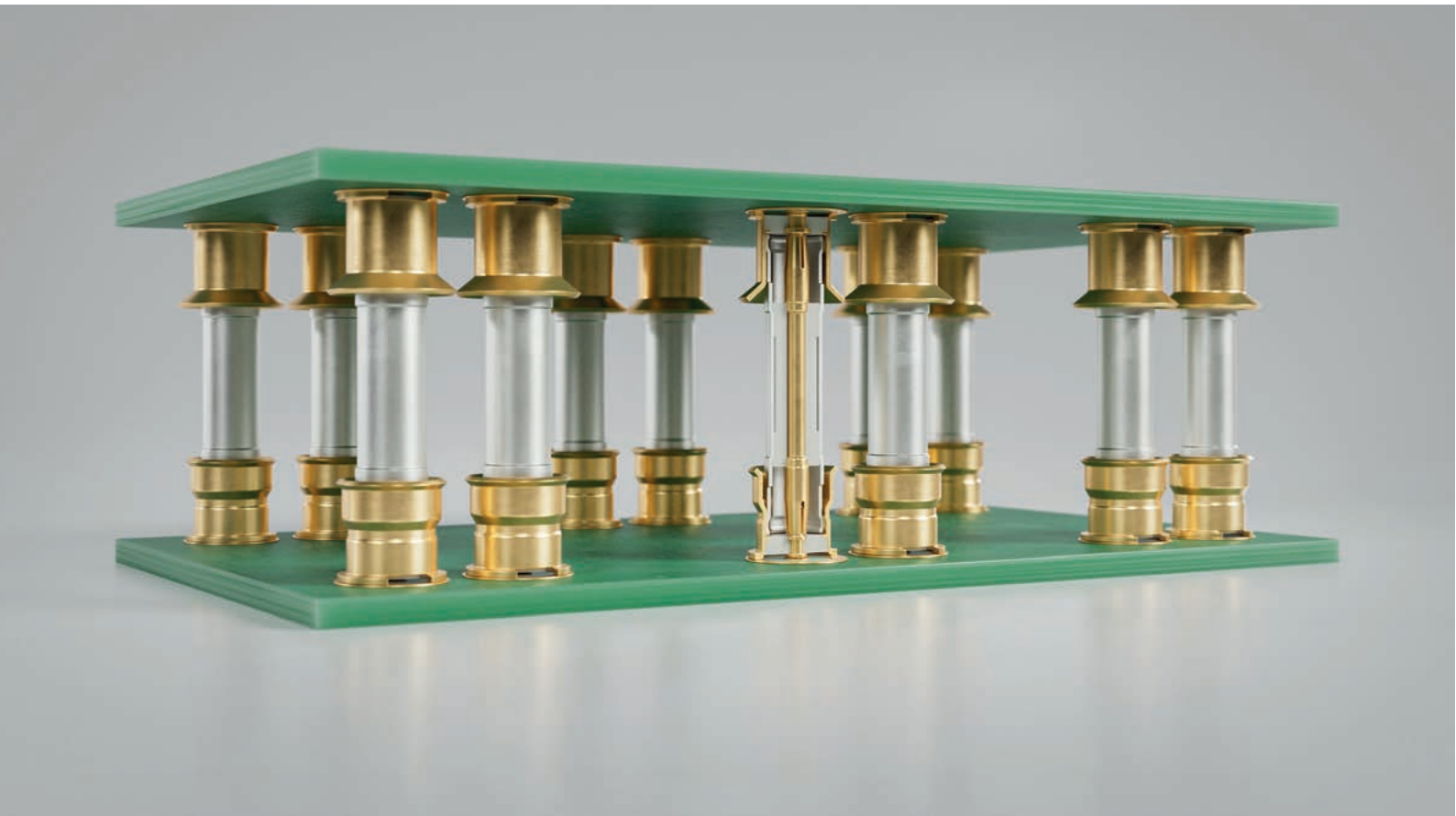
Suitable for high-power RF applications



Push-on/snap-on coupling for automated assembly

Applications

- Telecommunications infrastructure
  – 5G and 6G base stations
  – Filter modules
- Data centers
- Industrial RF equipment
- Defense systems





HiDens

Small Size. Less Weight. Proven Performance.

The new HiDens Connectors from Rosenberger are designed for high-density RF applications with limited installation space. The optimized connector concept enables increased packaging density and supports the realization of compact, lightweight system designs while maintaining the proven electrical and mechanical performance of the P-SMP® interface.

Benefits

- High RF performance
- Reliable operation up to 10 GHz
- Compact board-to-board solution
- Robust blind-mating capability
- Fast and tool-free snap-on connection

P-SMP® Overview

Standard

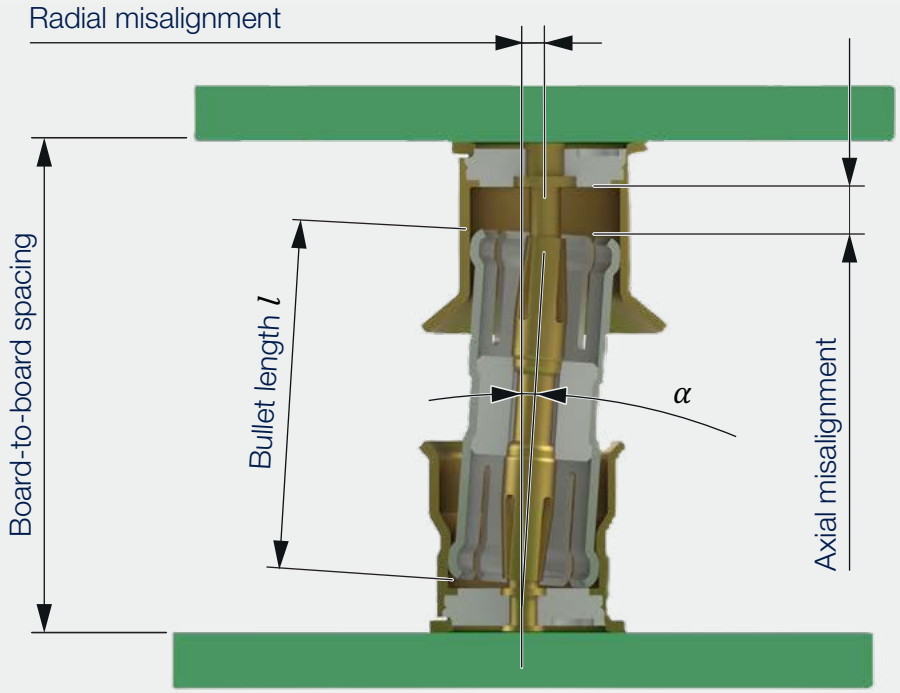
Rosenberger No.	Description	Product
119S101-40ML5	Weight: 0.92 g Power: 200 W @ 2.7 GHz	

HiDens

Rosenberger No.	Description	Product
119S1D01-40MF5	Weight: 0.27 g Power: 200 W @ 2.7 GHz	
119S1N01-40MF7	Weight: 0.17 g Power: 140 W @ 2.7 GHz	

Product Portfolio

- Panel connectors
- Cable connectors
- PCB connectors (SMD and SMD pin-in-paste)
- Adaptors and bullets in different lengths
- CalKit
- Cable assemblies



Mechanical Misalignment Compensation

The three-piece P-SMP® board-to-board solution with bullet adapter reliably compensates for axial and radial misalignment while maintaining outstanding electrical performance.

- Axial compensation through Smooth Bore Technology
- Radial compensation according to formula $X = l \times \sin \alpha$
- Bullet adapter as an intermediate element
- Suitable for parallel and perpendicular board-to-board configurations
- High signal integrity despite mechanical tolerances

Calculation

$$X = l \times \sin \alpha$$

X Maximum radial misalignment [mm]
α Maximum angle (4°)
l Bullet length [mm]

Website

For more information refer to our website:
www.rosenberger.com/product/p-smp/

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Certified by IATF 16949 · DIN EN 9100 · ISO 9001 · ISO 14001 · ISO 45001 · ISO 50001 · ESCC 3402

Order No.
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