

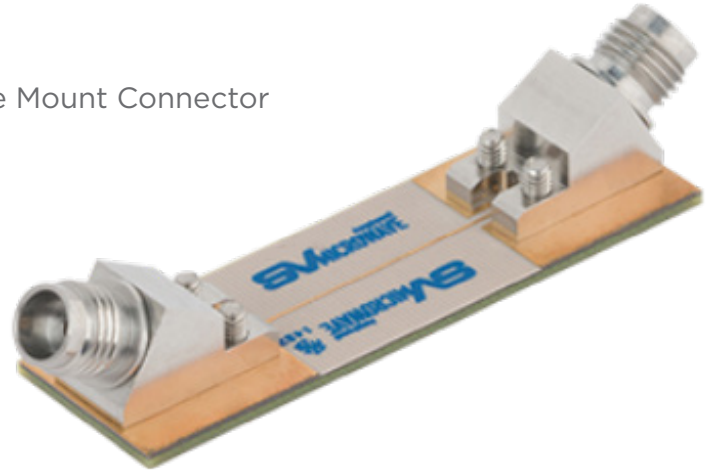
30° Surface Mount PCB Connectors

Features & Benefits

- Improved electrical performance over standard Surface Mount Connector
- Solderless design for fast installation
- Re-usable and easily replaceable
- DC up to 65 GHz

Applications:

- High speed/frequency component test
- Product evaluation boards



Optimized Board Connector Placement and Transition:

In Surface Mount PCB connections, a common challenge is the abrupt transition from the connector to the board (Figure 1), which can degrade RF performance. While Edge Launch PCB connectors offer an ideal transition (Figure 2), they are limited to placement along the board edges. This restriction forces RF signals to travel longer distances to reach their target components.

The 30° Surface Mount PCB Connector, however, can be positioned anywhere on the board (Figure 3), enabling closer proximity between components, minimizing lossy PCB-based transmission and enhancing RF performance compared to traditional surface-mount connectors. SV's 30° connector features a solderless design and consistent exit geometry across RF series, allowing for easy connector substitution and replacement during the final design stages.

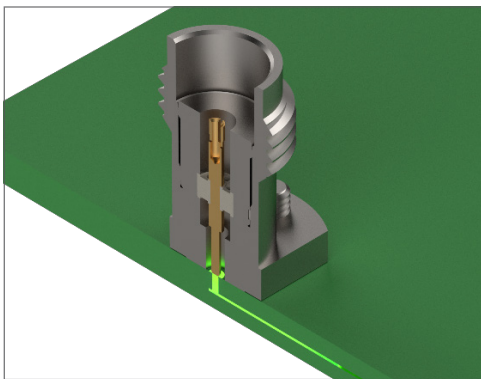


Figure 1:
Surface Mount Transmission Path

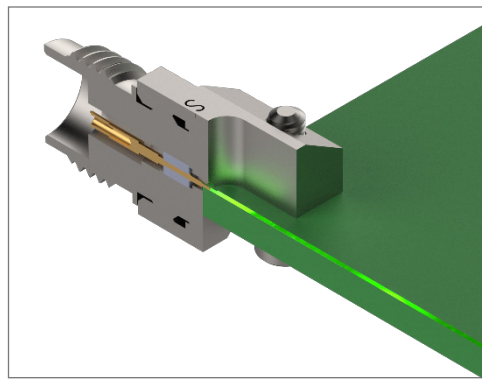


Figure 2:
Edge Mount Transmission Path

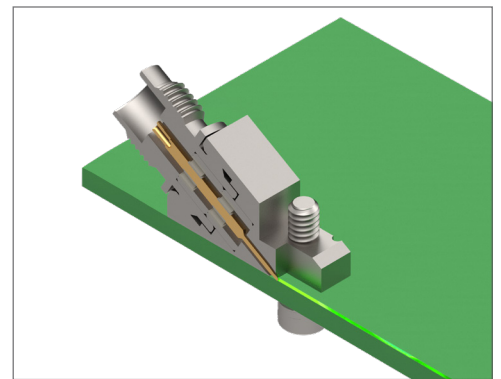


Figure 3:
30° Surface Mount Transmission Path

Electrical Performance Across PCB Connector Types

The plot below highlights the signal integrity of the 1.85mm 30° Surface Mount connector as compared to standard Edge Launch and Surface Mount connectors. As expected, the 30° Solderless series outperforms the standard Vertical Surface Mounts, at higher frequencies. Across the product's frequency range, 30° connectors perform on par with Edge Launch connectors.

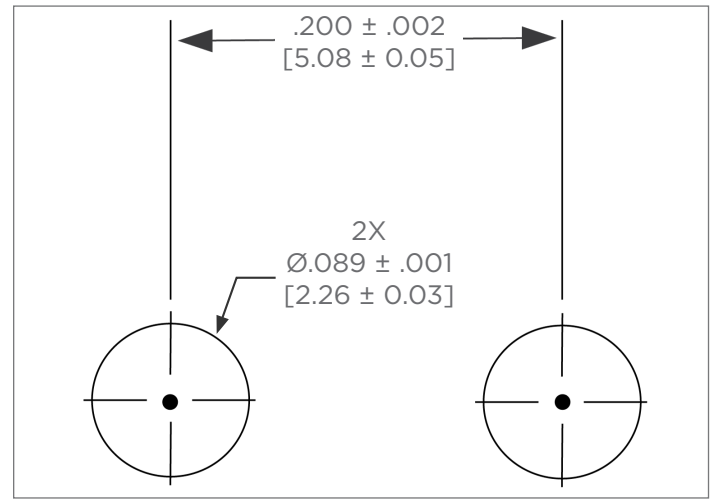


Figure 4: Mounting Pattern for 30° Solderless connectors are identical across the product line.

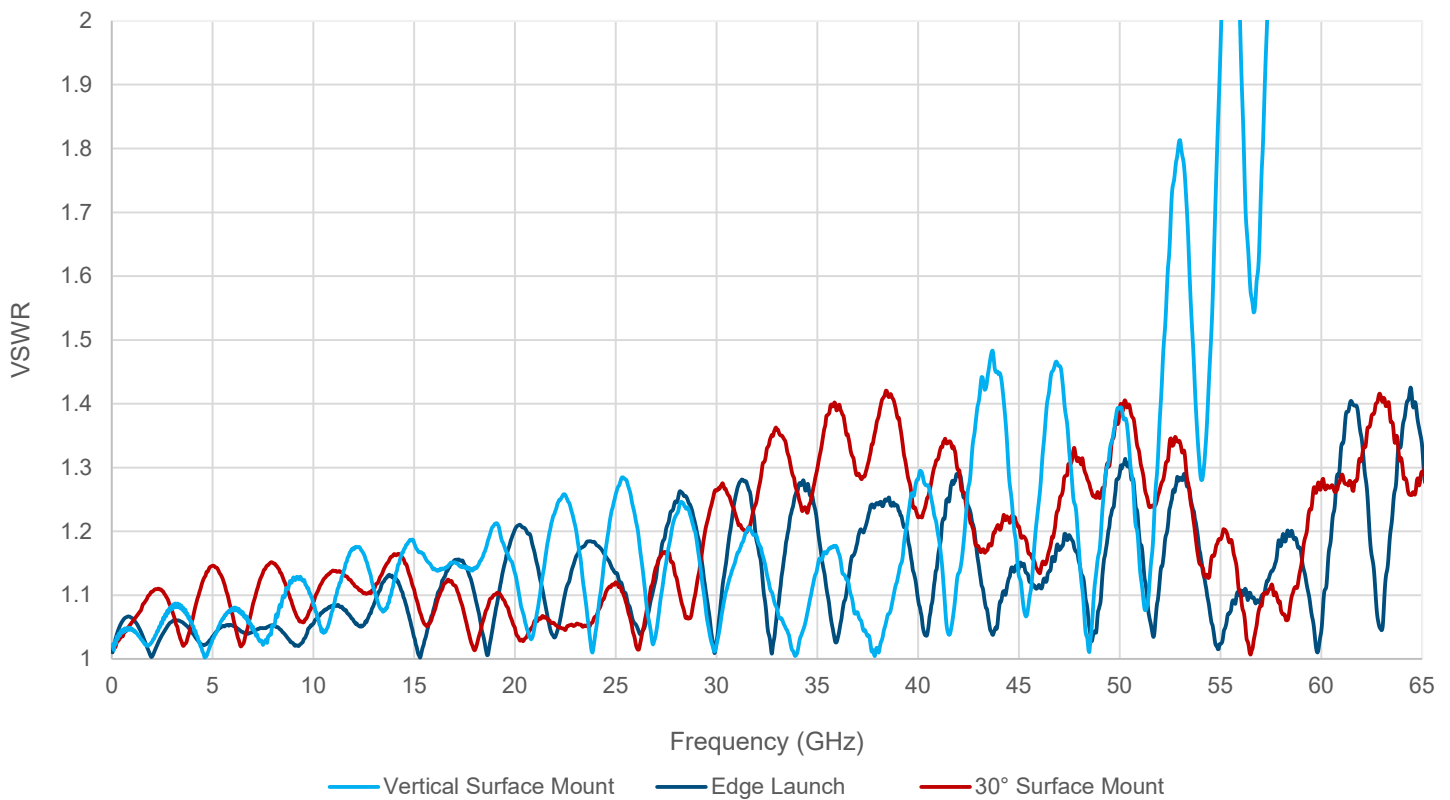


Figure 5: VSWR Performance across Solderless PCB Connector Mounting Styles

Part Number	Description
3322-60003	1.85mm Female Solderless PCB Compression Mount Connector, 2 Hole, 30°
1622-60002	2.4mm Female Solderless PCB Compression Mount Connector, 2 Hole 30°
1522-60008	2.92mm Female Solderless PCB Compression Mount Connector, 2 Hole, 30°
2922-61044	SMA Female Solderless PCB Compression Mount Connector, 2 Hole, 30°