

# TraceGuard Edge Launch RF PCB Connectors



## Features & Benefits

- Improved rotational captivation
- Maintains solder joint integrity on the PCB
- Features screws to help with fixturing
- DC up to 50 GHz

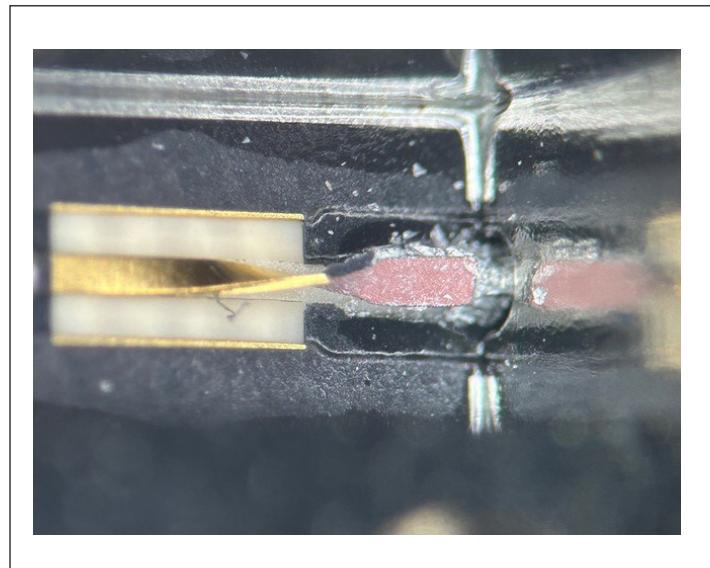
## Applications

- 5G Communications
- Printed circuit boards
- Test and instrumentation (High mating cycle environments)

**Problem:** Traditional threaded RF PCB Edge launches wear down over high mating cycles. This can slowly introduce small rotational movements on the center contact that causes it to spin internally.



**Consequence:** This small rotation can eventually lead to damage of the solder joint. In extreme cases this can end in de-laminated traces or twisted solderwire.



**Solution:** TraceGuard offers a new design feature using a glass seal to isolate rotation away from the PCB. This eliminates any chance of the rotational movement of the center contact being transferred from the interface of the connector to the board transition. SV is able to utilize our glass seal capabilities to offer this feature without impacting lead-times.

## COTS Product Specification Matrix

The table below presents a synthesized view of the primary specifications across the COTS lineup.

|                    | <b>SMA</b>   | <b>2.92mm</b>  | <b>2.4mm</b>   |
|--------------------|--|--|--|
| Max Frequency      | 18 GHz   | 40 GHz   | 50 GHz   |
| VSWR               | $1.05 + .005 * f$                                    | $1.03 + .005 * f$                                    | $1.05 + .005 * f$                                    |
| IL                 | $.03 * \sqrt{f}$                                     | $.04 * \sqrt{f}$                                     | $.05 * \sqrt{f}$                                     |
| DWV                | 1000   | 1000   | 1000   |
| Mating Cycles      | 500  | 500  | 500  |
| Mating Torque      | 7-10 in-lbs  | 7-10 in-lbs  | 7-10 in-lbs  |
| Temperature Rating | -65°C to 165°C                                       | -65°C to 165°C                                       | -65°C to 165°C                                       |
| Vibration          | Mil-STD-202, Method 204, Condition D, 20Gs           | Mil-STD-202, Method 204, Condition D, 20Gs           | Mil-STD-202, Method 204, Condition D, 20Gs           |
| Shock              | Mil-STD-202, Method 107, Condition B, -65°C to 165°C | Mil-STD-202, Method 107, Condition B, -65°C to 165°C | Mil-STD-202, Method 107, Condition B, -65°C to 165°C |
| Part Number        | 2921-61778   | 1521-60235   | 1621-60092   |

## Recommended Mounting Pattern

