

# G3PO™ Interconnect Series

## Product Information

CORNING

Microwave  
Products

A nano-miniature, push-on, high performance, microwave interconnect system. Developed in response to industry demand for increased package density, lower weight, and performance at higher frequencies.

- Center-to-center spacing of 0.085" and PCB to PCB stack height of 0.120" are available for increased package density.
- The G3PO™ blindmate interconnect, Part No. R1R1-0001-01 weighs just 0.2 milligrams.
- RF Performance from DC to 65 GHz
- Designed to accommodate both radial and axial misalignment with negligible VSWR change.
- Adapters available to SMA and 1.85mm.



G3PO Bullets on a Dime

## G3PO™ Product Characteristics<sup>1</sup>

- **Impedance:** 50 Ohms
- **Frequency:** DC to 100 GHz
- **VSWR:** 1.1:1 to 26.5 GHz typical;  
1.25:1 typical to 65 GHz
- **Insulation Resistance:**  
3,500 megaohms min.
- **Center Conductor Contact Resistance:**  
6.0 milliohms max.
- **DWV @ Sea Level:** 250 Vrms
- **Corona Level @ 70,000':** 100 Vrms
- **RF High Pot. @ 5 MHz:** 150 Vrms
- **Force to Engage:** 3.5 lbs. typical Full  
Detent, 1.6 lbs. typical Smooth Bore
- **Force to Disengage:** 6.0 lbs. typical  
Full Detent, 2.5 lbs. typical  
Smooth Bore
- **Center Contact Retention:**  
0.75 lbs. min. (captivated designs)
- **Misalignment, Radial:**  $\pm 0.010''$
- **Misalignment, Axial:** 0.010"  
(flush to -0.010" from the  
reference plane)
- **Temperature Range:** -65° C to +165° C
- **Environmental Testing:**  
Meets MIL-PRF-39012 for Corrosion,  
Vibration, Mechanical Shock, Thermal  
Shock and Moisture Resistance  
(paragraphs 3.13, 3.18, 3.19, 3.20, 3.21)

### NOTES:

<sup>1</sup> Performance listed is typical. Individual part configuration may vary. Contact our Customer Care Team for more information and specifications by part number.

## Product Examples

R1R1-0001-01  
Blindmate Interconnect



R010-L13-01  
Male PCB Edge Mount



R014-B11-01  
Female Cable Straight 0.047 S/R



R055-A11-01  
Female 50 Ohm Load



R055-A13-01  
Male 50 Ohm Load Full Detent



## G3PO™ Tools

G3PO tools are rugged in construction and easy to use. The removal tools are engineered for low-impact removal of G3PO components, preventing undue stress and damage. Corning Gilbert also offers an array of other easy-to-use cable assembly tools, including the contact retaining tool.

### R095-A99-01

#### G3PO Blindmate Interconnect Removal Tool

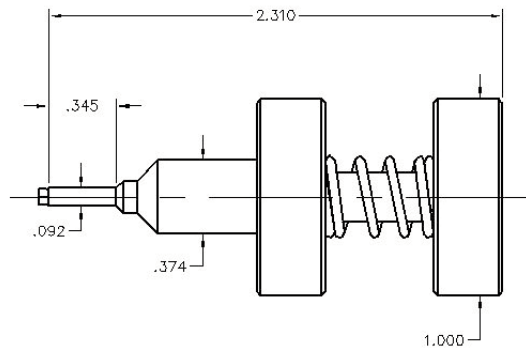
##### Material & Finish:

Rear Insert, Head, & Plunger  
Cres 303; Passivated

Collet  
BeCu; Bright Alloy Plate

Front Body  
17-4 PH Stainless Steel;  
Passivated

Spring  
Stainless Steel

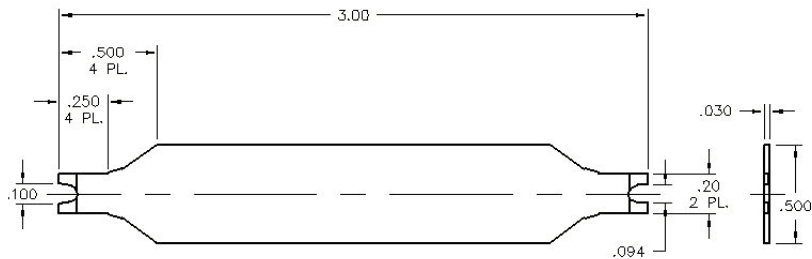


### R098-A99-01

#### G3PO Cable Connector Removal Tool

##### Material & Finish:

Removal Tool  
304 Stainless Steel



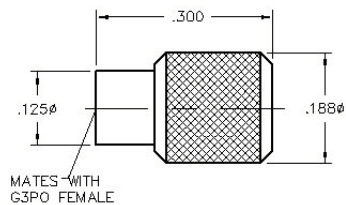
### R096-A95-01

#### G3PO Center Contact Retaining Tool

##### Material & Finish:

Housing  
Cres 303; Passivated

Plug  
17-4 PH Stainless Steel;  
Passivated



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Microwave Products

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