



# ITT

Interconnect Solutions  
Cannon, VEAM, BIW

Ensuring soldier safety

in the harshest environments for

20 years and over

500,000 SINCGARS radios



*Engineered for life*

Mini RF connectors are the ideal solution for customers producing devices that require verification of antenna or circuit board performance. They are specifically designed for use with portable terminal interfaces and the inspection of microwave boards used at frequencies of up to 6 GHz. The specially incorporated flared interface cone not only allows the user to snap on a bench test adaptor but also allows high mating cycles on the accessory connector.

## Features & Benefits of the Design

- Small size / low profile saving space on PCB
- High mating cycles on accessory port
- Switchable
- High force on the switch providing more robust connection
- Robust design
- Latching mechanism for ease-of-use during bench testing
- Compatible with lead free soldering
- Designed for pick and place
- Cradle interface incorporates patented ball - enables angular misalignment without loss to performance
- Compliant with WEEE and RoHS directives

## Accessories

Ball Nose Cradle connector typical for car kit applications and Low Profile Jump Cable typical for board-to-board system connection.

## Applications

- Mobile handset
- Other wireless (PDA, PPC, Gaming)
- Portable phones
- Network carriers - base stations
- Automotive - key fob / locking
- Industrial - transportation equipment
- Cable houses - board-to-board cable interconnect
- Electronic measuring instrumentation / equipment
- GPS - navigation systems (ETC)
- Wireless LAN

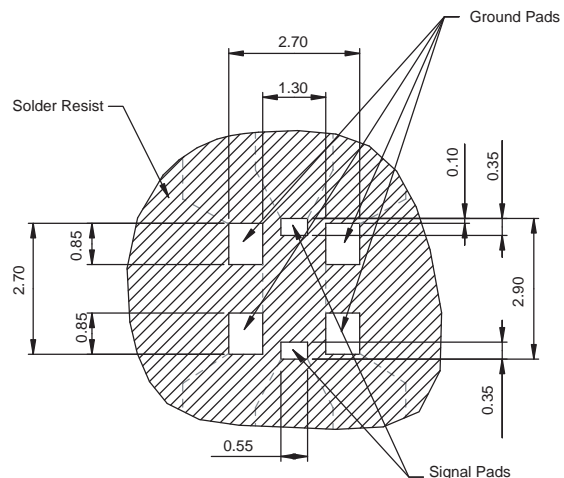
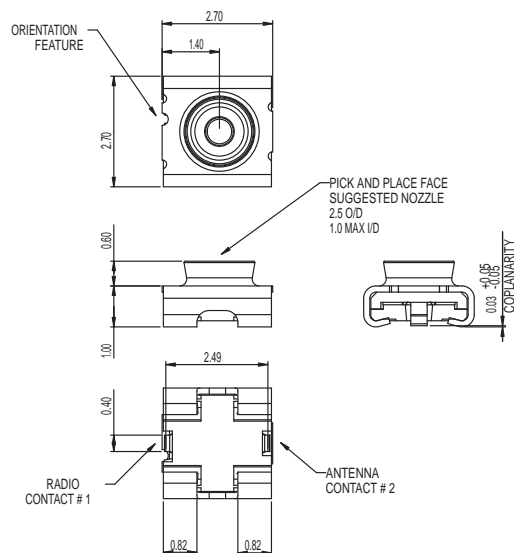
And any small devices requiring verification of antenna/circuit performance.

<b>Mini RF Series</b>	120220-0180 Accessory connector, 120220-0190 Test Port
<b>Base materials</b>	Copper alloy - Shell LCP plastic - Insulator Beryllium copper - Contacts
<b>Plating</b>	120220-0180 - Gold over nickel
<b>ELECTRICAL</b>	
Frequency	0.01 - 6 GHz
Impedance	50Ω nominal
VSWR	≤ 1.2:1
Insertion loss	unmated condition <0.1 dB mated condition <0.5 dB
Dielectric withstanding voltage	100 VAC (150 V peak)
Contact resistance	200mΩ max (initial)
Power	2 watts
<b>MECHANICAL</b>	
Mating Cycles	120220-0180 (with cradle connector) up to 10,000 mating cycles
<b>ENVIRONMENTAL</b>	
Operating temperature	-40 to 85°C
Humidity	operable in 95% RH temp +40°C
Solder systems	Infrared and hot air reflow suitable for lead-free
Vibration	In accordance IEC 68-2-64
Shock	In accordance to IEC 68-2-27, 100 g
<b>PACKAGING</b>	
Packaging style	Tape and reel to EIA-481
Packaging size	8000 per reel

A float mount production test adaptor is available by request.



**120220-0180  
Cradle Interface**



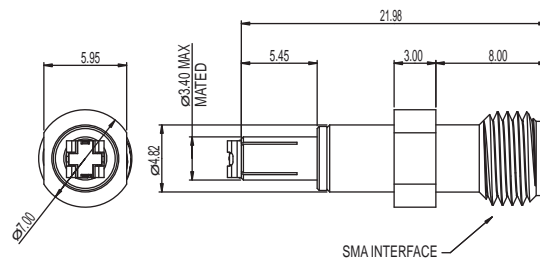
## Accessories



**120220-0175  
Snap-on Bench Test Adaptor**



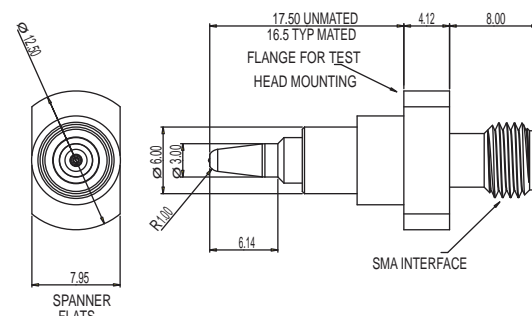
**Snap-on mated**



**120220-0176  
Ball Nose Production Test Adaptor**



**Ball Nose mated**



**120220-0177  
Cradle Connector (Capability)**

