

# Amphenol

NEW PRODUCT RELEASE NEW PRODUCT RELEASE NEW PRODUCT RELEASE NEW PRODUCT RELEASE

## MINI 75Ω SMB CONNECTORS



Mini 75 ohm SMB Connectors

Amphenol introduces the Mini 75 ohm SMB connector family. Mini 75 ohm SMB provides broadband capability through 2 GHz. Its snap-on design utilizes die cast components on non-critical areas to provide a low cost solution.

The Mini 75 ohm SMB offers snapfit mating for quick connect/disconnect. The reduced housing allows circuit miniaturization and efficient “real estate” utilization. Built in accordance with requirements of Mil-C-39012, the interface is in compliance with Mil-STD 348 and is interchangeable with Industry Standard for Miniature 75 ohm SMB.

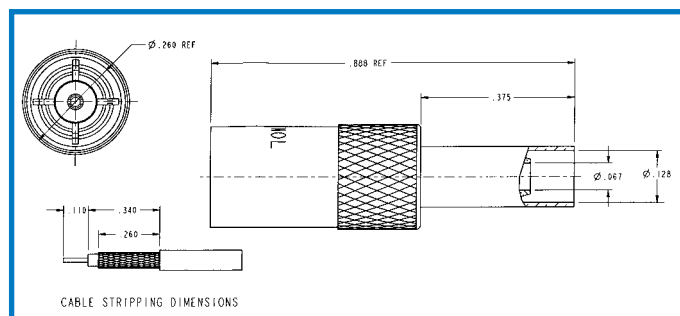
### Applications:

- Telecommunications
- Switching Equipment
- Networking

### Ordering Information

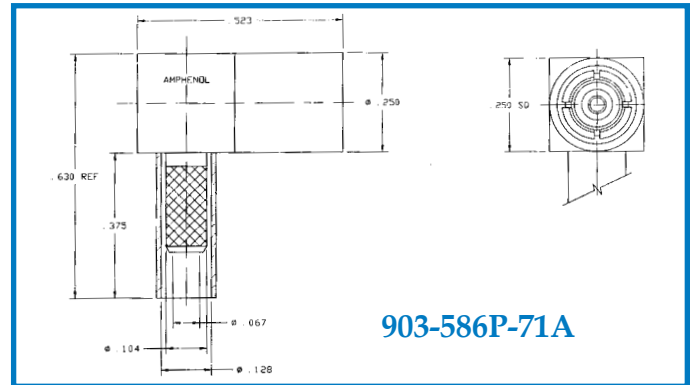
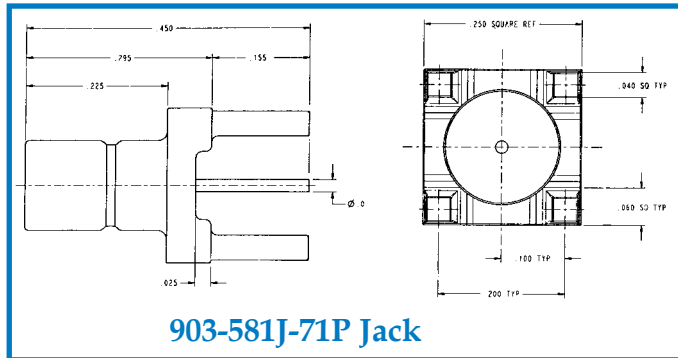
Part No.	Cable Size	Description
903-600P-71S	RG-179	Straight Plug
903-605P-71S	RD-179	Straight Plug
903-598P-71S	735A	Straight Plug
903-586P-71A	RG-179	R/A Plug
903-599P-71A	RD-179	R/A Plug
903-588P-71A	735A	R/A Plug
903-604J-71S	RG-179	Straight Blkh Jack
Leg Length		
903-601J-71P	.110	R/A PCB Jack
903-581J-71P	.155	Straight PCB Jack

### 903-600P-71S Plug



Features	Benefits
75 ohm snap-on coupling.	Allows quick installation.
Same interface as 50 ohm SMB.	Maintains same “real estate” with enhanced impedance. Product interchangeable with competitors.
Diecast components.	Offers low cost solution.

# Mini 75 $\Omega$ SMB Connector



## Specifications:

### Environmental:

Temperature range	-65°C to +165°C
Thermal shock	MIL-STD-202 method 107 (test cond. B) except high temp test @ +200°C
Vibration	MIL-STD-202 method 204, snap-on (test cond. B) (15 G's)
Shock	MIL-STD-202 method 213, snap-on (test cond. B) 75 G's @ 6 milliseconds 1/2 sine.
Corrosion	MIL-STD-202 method 101 (test cond. B) 5% salt solution.

### Mechanical:

Mating	Mini 75 ohm snap on coupling
Engagement forces	Initial 14 lbs. max.engagement. After 500 matings, 14 lbs. max engagement and disengagement. 2 lbs. min.disengagement.
Connector affixment to cable	Braid and jacket: hex crimp.
Cable affixment to center contact	Solder
Contact captivation	All types, except as noted
Cable retention	Equal to breaking strength of cable employed
Connector durability	500 mating and unmating cycles min.

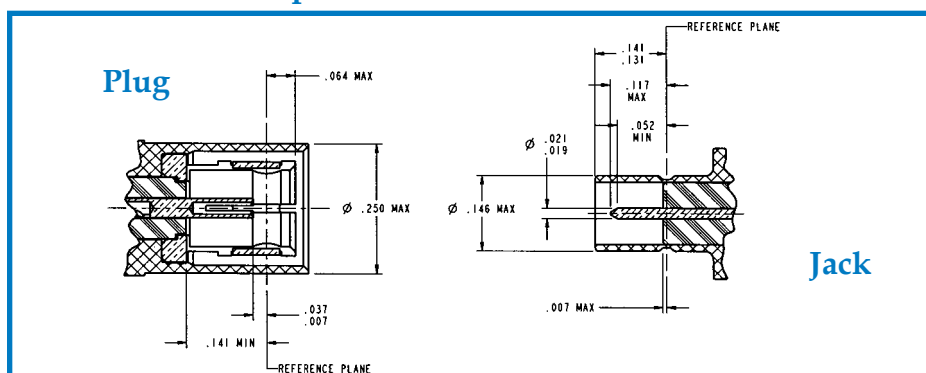
### Material:

Bodies	Brass per QQB-626 or zinc per ASTM B86-71 as specified, nickel (or gold) plated as listed
Center contacts	Female: Copper alloy spring material, beryllium copper or equivalent, gold plate Male: Brass or beryllium
Outer contact	Brass, nickel plate
Crimp ferrules	Annealed copper alloy
Insulators	TFE

### Electrical:

Impedance	75 $\Omega$
Frequency range	0-2 GHz with low reflection
Voltage rating for RG-188/U cables	Sea level: 335 volts 70,000 ft: 85 volts
Dielectric withstanding voltage	750 VRMS for RG-179 type
VSWR RG-179/U Series cables	Straight connectors 1.33 max. Rt. angle connectors 1.43 max.
Contact Resistance Center contact Outer contact	Initial, 6.0 m $\Omega$ ; After environmental, 8.0 After environmental, 1.5 initial, 1.0 m $\Omega$
Braid to body	After environmental, N/A
Insulation resistance	1000 M $\Omega$ min.
RF leakage	-55 dB min. @ 2 GHz
Insertion loss	Straight connectors 0.30 dB @ 1.5 GHz Rt. angle connectors 0.60 dB @ 1.5 GHz

## Mini 75 $\Omega$ SMB Interface Specifications



**Amphenol®**

One Kennedy Avenue  
Danbury, Connecticut 06810  
Telephone: (203) 743-9272  
Fax: (203) 796-2032  
www.amphenolrf.com