

# A New Kind of RF Solution

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Search Results for: Straight Bulkhead Jack For P.C. Board

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D-Sub

Part Number: 142210 Cable Group: N/A



Part Number: 142210
Family/Series: SMB/SMC Coaxial
Connectors
Product Type: PRINTED CIRCUIT

BOARD/STRAIGHT TERMINALS

Description: Straight Bulkhead Jack For P.C. Board

SMB CONNECTORS

Cable: Non Applicable \*\*

Add to Cart | Product Specs | Customer Drawing

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Between-Series Adapters
Shielded Terminations

**Strain-Relief Boots** 

Tools

**MCX** 

<u>SMA</u>

**SMB** 

**SMC** 

**TNC** 

Twin BNC

Type F Type N

<u>UHF</u>

**MMCX** 

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Finish: Gold

Insulation: Teflon

Crimp Tool: N/A

Impedance: 50 ohms

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**Our Products** 

7/16 **BNC** 

D-Sub

**FME** <u>MCX</u>

**MMCX** 

<u>SMA</u>

**SMB** 

SMC

TNC

Twin BNC

Type F

Type N UHF

Between-Series Adapters

**Shielded Terminations** 

Strain-Relief Boots

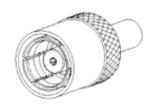
Tools

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# SMB connector series

Features & Benefits | Applications | 50 Ω Specs | 75 Ω Specs | 75 Ω High Density Specs | Assembly Instructions

The SMB name derives from SubMiniature B (the second subminiature design). Developed in the 1960's, the SMB is a smaller version of the SMA with snap-on coupling. Amphenol's SMB connectors conform to the requirements of MIL-C-39012, and the interface is in compliance with MIL-STD-348. Available in 50  $\Omega$  and 75  $\Omega$  impedance, the SMB provides broadband capability through 4 GHz with a snap-on connector design and utilizes die cast components on non-critical areas to provide a low-cost solution.



#### SMB/SMC Coaxial Connectors

#### CRIMP ATTACHMENTS FOR FLEXIBLE & SEMI-RIGID CABLE

Straight Crimp Plug - Flexible Cable

Straight Solder Plug - Semi-Rigid Cable

Straight Crimp Jack - Flexible Cable

Straight Crimp Jack - Flexible Cable

Straight Solder Jack - Semi-Rigid Cable

Right Angle Cable Plug - Flexible Cable

Right Angle Cable Plug - Semi-Rigid Cable

Bulkhead Feedthrough Cable Jack — Flexible Cable

Bulkhead Feedthrough Cable Jack — Flexible Cable

Right Angle Crimp Jack - Flexible & Semi-Rigid Cable

Right Angle Bulkhead Crimp Jack — Flexible Cable

#### CRIMP ATTACHMENTS FOR FLEXIBLE CABLE - 75 OHM SNAP LOCK

Straight Crimp Plug - Snap Lock

Right Angle Crimp Plug - Snap Lock

#### CLAMP TERMINATIONS FOR FLEXIBLE CABLE

Straight Cable Plug

Straight Cable Jack

Bulkhead Feedthrough Cable Jack

Right Angle Cable Plug

#### PRINTED CIRCUIT BOARD/STRAIGHT TERMINALS

Straight Plug For P.C. Board

Straight Jack For P.C. Board

Straight Bulkhead Jack For P.C. Board

Right Angle Plug For P.C. Board

Right Angle Jack For P.C. Board

Right Angle Bulkhead Jack For P.C. Board

#### **BULKHEAD MOUNT/SOLDER POT TERMINALS**

Bulkhead Jack Receptacle - Front Mount

Bulkhead Jack Receptacle - Rear Mount

Bulkhead Recessed Jack Receptacle

Press Fit Jack Receptacle

## PANEL MOUNT/SOLDER POT TERMINALS

Panel Mount Jack Receptacle - 4 Hole Square Flange

Panel Mount Jack Receptacle — 2 Hole Flange

# **ADAPTERS**

Plug-To-Plug Adapter

Jack-To-Jack Adapter

### **Features & Benefits**

- Broadband performance with low reflection DC to 4 GHz provides low cost connector combined with high quality.
- Quick connect/disconnect snap-on mating reduces installation time.
- Various plating options in nickel, gold, and tin lead. Selective plating provides corrosion resistance finish as well as good solderability characteristics.
- SMB PCB slide-on plug and jack allows board-to-board mounting with a low insertion force. This is ideal for mating a high number of connectors on a pair of PCB's.

### **Applications**

- Automotive
- Cable Assemblies
- PC/LAN
- Surge Protection
- Video Systems
- Automotive (GPS)
- Components
- Process Controls
- Telecom

- Base Stations
- Instrumentation
- Radio Boards
- Test and Measurement

## 50 $\Omega$ SMB Specifications

Impedance	50 Ω
Frequency Range	0-4 GHz with low reflection; usable to 10.0 GHz
	335 volts at sea level and 85 volts at 70,000 feet
Dielectric Withstanding Voltage	RG-196: 750 VRMS; RG-188: 1,000 VRMS
VSWR	Straight connector, RG-196/U: 1.30 + .04 f (GHz) Right angle connector, RG-196/U: 1.45 + .06 f (GHz) Straight connector, RG-188/U: 1.25 + .04 f (GHz) Right angle connector, RG-188/U: 1.35 + .04 f (GHz)
Contact Resistance	Center contact: $6.0~\text{m}\Omega$ initial, $8.0~\text{after}$ environmental; Outer contact: $1.0~\text{m}\Omega$ initial, $1.5~\text{after}$ environmental Braid to body: $1.0~\text{m}\Omega$ initial, after environmental N/A
Insulation Resistance	1,000 M $\Omega$ minimum
Insertion Loss	Straight connector: 0.30 dB @ 1.5 GHz Right angle connector: 0.60 dB @ 1.5 GHz
RF Leakage	-55 dB minimum @ 2-3 GHz
Mechanical	
Mating	Snap-on coupling per MIL-STD-348
Braid/Jacket Cable Affixment	Hex crimp
Center Conductor Cable Affixment	Solder
Contact Captivation	All types unless noted otherwise
Cable Retention	Equal to breaking strength of cable employed
Engagement Forces	Engagement: 14 lbs maximum Disengagement: 2 lbs minimum After 500 matings, 14 lbs maximum engagement and disengagement
Connector Durability	500 mating cycles minimum
Material	
Center Contact	Female: beryllium copper, gold-plated Male: brass or beryllium copper, gold-plated
Outer Contact Plating	Nickel or gold plating as indicated
Body	Brass per QQB-626, or zinc per ASTM B86-71
Body Plating	Nickel or gold plating as indicated
nsulator	TFE
Crimp Ferrule	Annealed copper alloy

Environmental		
Temperature Range	- 65°C to +165°C	
Thermal Shock	MIL-STD-202 method 107, test condition B (except high temperatures @ 200°C	
Shock	MIL-STD-202 method 202, method 13, snap-on, test condition B; 75 G's @ 6 milliseconds ½ sine	
Vibration	MIL-STD-202 method 204, snap-on, test condition B; (15 G's)	
Corrosion	MIL-STD-202 method 101, test condition B. 5% salt solution	

Note: These characteristics are typical but may not apply to all connectors.

# **75** $\Omega$ SMB Specifications

Electrical	
Impedance	75 Ω
Frequency Range	0-4 GHz with low reflection; usable to 10.0 GHz
Voltage Rating for RG-188/U Cable	335 volts at sea level and 85 volts at 70,000 feet
Dielectric Withstanding Voltage	1,000 VRMS
RF High Potential Withstanding Voltage	RF-195/U series: 500 VRMS
Corona Level	RG-195/U series: 400 volts minimum @ 70,000 ft
VSWR	Straight connector, RG-196/U: 1.30 + .04 f (GHz) Right angle connector, RG-196/U: 1.45 + .06 f (GHz) Straight connector, RG-188/U: 1.25 + .04 f (GHz) Right angle connector, RG-188/U: 1.35 + .04 f (GHz)
Contact Resistance	Center contact: $6.0~m\Omega$ initial, $8.0$ after environmental; Outer contact: $1.0~m\Omega$ initial, $1.5$ after environmental Braid to body: $1.0~m\Omega$ initial, after environmental N/A
Insulation Resistance	1,000 M $\Omega$ minimum
Insertion Loss	Straight connector: 0.30 dB @ 1.5 GHz Right angle connector: 0.60 dB @ 1.5 GHz
RF Leakage	-55 dB minimum @ 2-3 GHz
Mechancial	
Mating	Snap-on coupling per MIL-STD-348
Braid/Jacket Cable Affixment	Hex crimp
Center Conductor Cable Affixment	Solder
Contact Captivation	All types unless noted otherwise
Cable Retention	Equal to breaking strength of cable employed
Engagement Forces	Engagement: 14 lbs maximum Disengagement: 2 lbs minimum After 500 matings, 14 lbs maximum engagement and disengagement
Connector Durability	500 mating cycles minimum
Material	
Center Contact	Female: beryllium copper, gold-plated Male: brass or beryllium copper, gold-plated
Outer Contact Plating	Nickel or gold plating as indicated
Body	Brass per QQB-626
Body Plating	Nickel or gold plating as indicated
Insulator	TFE
Crimp Ferrule	Annealed copper alloy
Environmental	
Temperature Range	- 65°C to +165°C
Thermal Shock	MIL-STD-202 method 107, test condition B (except high temperatures @ 200°C
Shock	MIL-STD-202 method 213, snap-on, test condition B; 75 G/s @ 6 milliseconds $\frac{1}{2}$ sine
Vibration	MIL-STD-202 method 202, snap-on, test condition B; (15 G
	MIL-STD-202 method 101, test condition B. 5% salt solution