

Description

The SMB name derives from SubMiniature B (the second subminiature design). The SMB was developed in the 1960's.

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 their interface is in compliance with MIL-STD-348.

Available in 50 & 75 ohm impedance

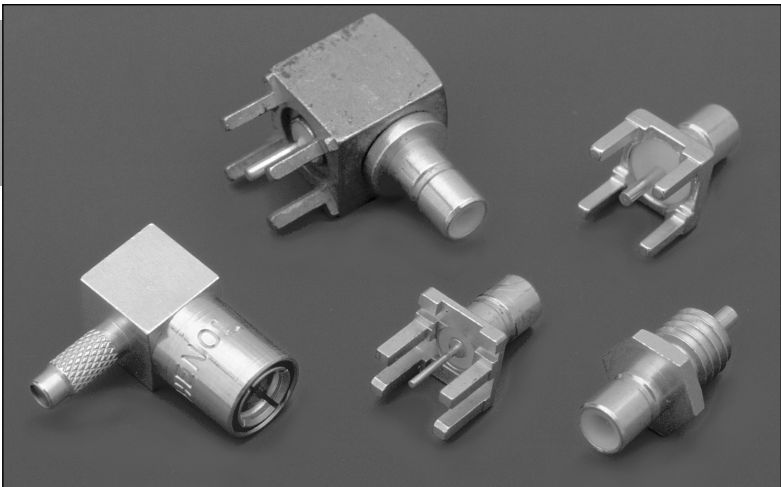
SMB provides broadband capability through 4 GHz with a snap-on connector design and utilizes die cast components on non-critical areas to provide a low cost solution.

Features and 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.
- Availability in 50 Ohm, 75 Ohm & High Density 75 Ohm ensures customer a solution to specific applications.
- Various plating options: Nickel, Gold, Tin Lead. Also 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. Ideal for mating a high number of connectors on a pair of PCBs.

Application

- Antennas
- Automotive (GPS)
- Base Stations
- Cable Assemblies
- Components
- Instrumentation
- PC/LAN
- Process Controls
- Radio Boards
- Surge Protection
- Telecom
- Test and Measurement
- Video Systems



50 ohm Coaxial Connectors

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75 ohm Coaxial Connectors

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75 ohm High Density Coaxial Connectors

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ELECTRICAL

Impedance	50 ohms
Frequency range	0-4 GHz with low reflection; usable to 10.0 GHz.
Voltage rating for RG-188/U cables	Sea level: 335 volts 70,000 ft: 85 volts
Dielectric withstanding voltage	750 VRMS RG-196 type 1000 VRMS for RG-188 type
VSWR	RG-196/U series 1.30 + .04 f (GHz) 1.45 + .06 f (GHz)
straight connectors rt. angle connectors	RG-188/U series 1.25 + .04 f (GHz) 1.35 + .04 f (GHz)
Contact resistance	Center contact: initial, 6.0 milliohms; After environmental, 8.0 Outer contact: initial, 1.0 milliohms; After environmental, 1.5 Braid to body: initial, 1.0 milliohms; After environmental, N/A
Insulation resistance	1000 megohms min.
RF leakage	-55 dB min. @ 2 - 3 GHz
Insertion loss:	
straight connectors rt. angle connectors	0.30 dB @ 1.5 GHz 0.60 dB @ 1.5 GHz

MECHANICAL

Mating	50 ohm snap-on coupling, per MIL-STD-348
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.

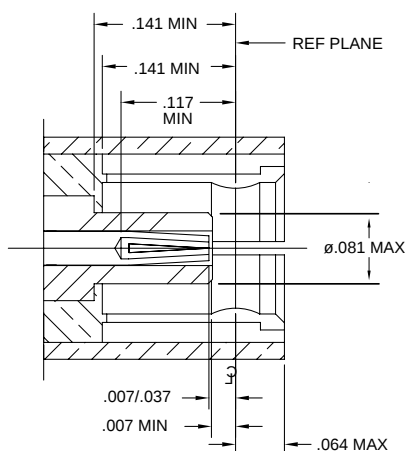
ENVIRONMENTAL

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) (15G'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.

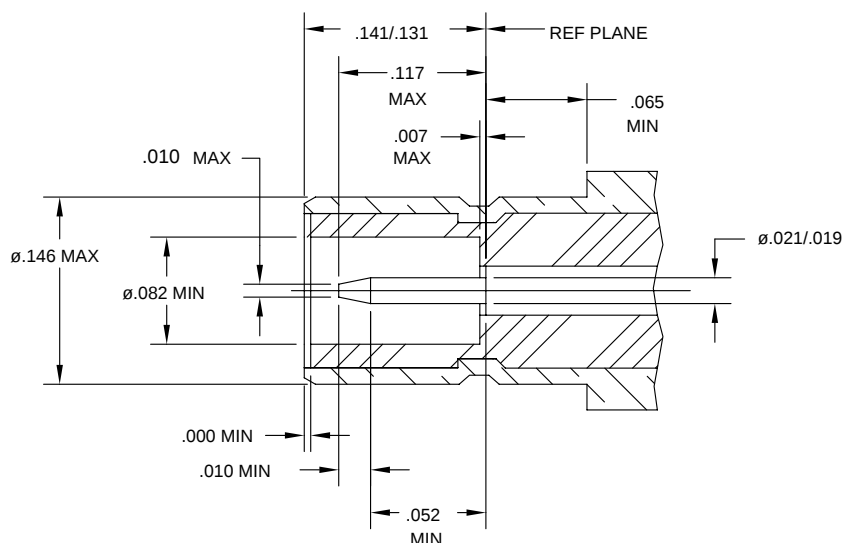
MATERIAL

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

PLUG



JACK



SMB 50 ohm Coaxial Connectors

Amphenol®

Fig. 1	Fig. 1	Fig. 2																														
Fig. 1A	Fig. 1A	50Ω SMB Angle Plugs - Braid Crimp/Solder Female Contact <table><tr><td rowspan="4">RG-174 179, 187, 188, 316</td><td>903-289P-51A</td><td>Gold Plated</td></tr><tr><td>903-289P-51A2▲*</td><td>Gold Plated</td></tr><tr><td>903-367P-51A</td><td>Nickel Plated</td></tr><tr><td>903-367P-51A1</td><td>Nickel Plt. Body, Gold Plt Outer Cont.</td></tr><tr><td rowspan="4">RG-178, 196</td><td>903-367P-51A2▲*</td><td>Nickel Plated</td></tr><tr><td>903-291P-51A</td><td>Gold Plated</td></tr><tr><td>903-291P-51A1▲*</td><td>Gold Plated</td></tr><tr><td>903-368P-51A</td><td>Nickel Plated</td></tr><tr><td rowspan="2">Dbl. Br. RG-316</td><td>903-368P-51A1▲*</td><td>Nickel Plated</td></tr><tr><td>903-369P-51A</td><td>Nickel Plated</td></tr><tr><td colspan="2"></td><td>903-369P-51A2*</td><td>Nickel Plated</td></tr></table>		RG-174 179, 187, 188, 316	903-289P-51A	Gold Plated	903-289P-51A2▲*	Gold Plated	903-367P-51A	Nickel Plated	903-367P-51A1	Nickel Plt. Body, Gold Plt Outer Cont.	RG-178, 196	903-367P-51A2▲*	Nickel Plated	903-291P-51A	Gold Plated	903-291P-51A1▲*	Gold Plated	903-368P-51A	Nickel Plated	Dbl. Br. RG-316	903-368P-51A1▲*	Nickel Plated	903-369P-51A	Nickel Plated			903-369P-51A2*	Nickel Plated		
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50Ω SMB Plugs - Braid Crimp/Solder Female Contact <table><tr><td rowspan="5">RG-174,179, 187,188, 316</td><td>903-285P-51S</td><td>Gold Plated</td></tr><tr><td>903-508P-51S●</td><td>Gold Plated</td></tr><tr><td>903-370P-51S▲</td><td>Nickel Plated</td></tr><tr><td>903-577P-51S1*</td><td>Nickel Plated</td></tr><tr><td>903-577P-51S*</td><td>Gold Plated</td></tr><tr><td rowspan="5">RG-178,196</td><td>903-287P-51S</td><td>Gold Plated</td></tr><tr><td>903-509P-51S●</td><td>Gold Plated</td></tr><tr><td>903-371P-51S▲</td><td>Nickel Plated</td></tr><tr><td>903-578P-51S*</td><td>Gold Plated</td></tr><tr><td>903-578P-51S1*</td><td>Nickel Plated</td></tr><tr><td rowspan="3">Dbl. Br. RG-316</td><td>903-401P-51S</td><td>Gold Plated</td></tr><tr><td>903-579P-51S*</td><td>Gold Plated</td></tr><tr><td>903-579P-51S1*</td><td>Nickel Plated</td></tr></table>				RG-174,179, 187,188, 316	903-285P-51S	Gold Plated	903-508P-51S●	Gold Plated	903-370P-51S▲	Nickel Plated	903-577P-51S1*	Nickel Plated	903-577P-51S*	Gold Plated	RG-178,196	903-287P-51S	Gold Plated	903-509P-51S●	Gold Plated	903-371P-51S▲	Nickel Plated	903-578P-51S*	Gold Plated	903-578P-51S1*	Nickel Plated	Dbl. Br. RG-316	903-401P-51S	Gold Plated	903-579P-51S*	Gold Plated	903-579P-51S1*	Nickel Plated
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		Fig. 3																														
		50Ω SMB Low Profile Angle Plugs, Braid Crimp/Solder Female Contact <table><tr><td>RG-174,179, 187,188, 316</td><td>903-429P-51A</td><td>Gold Plated</td></tr></table>		RG-174,179, 187,188, 316	903-429P-51A	Gold Plated																										
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50 ohm SMB PLUGS & ANGLE PLUGS

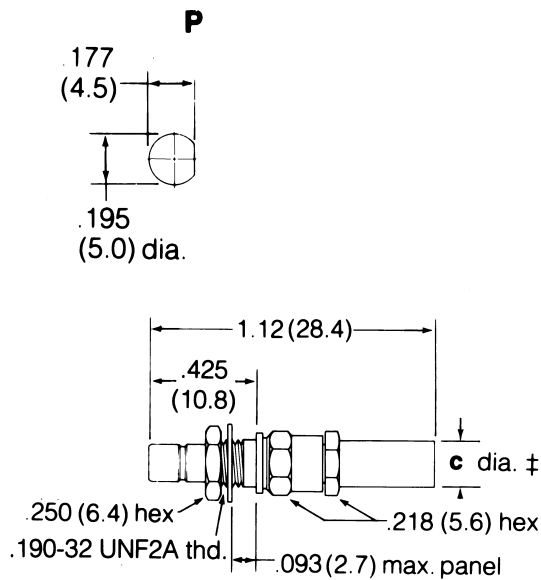
Cable RG-/U	Connector Description	Cable Attachment		c Dia. In. (mm)	CAI	Plt.	Ins.	Notes	Amphenol Number	Fig.
		Outer	Inner							
RG-174,179,187, 188,316	Plug	Crimp	Solder	.128(3.3)‡	C60	P11	D1	Gold Plated Body	903-285P-51S	1
				.128(3.3)‡	C62	P11	D1	Gold Plated Body	● 903-508P-51S	1A
				.128(3.3)‡	C60	P15	D1	Nickel Plated Body	▲ 903-370P-51S	1
				.128(3.3)‡	C60	P15	D1	Nickel Plated Body	* 903-577P-51S1	1A
				.128(3.3)‡	C60	P15	D1	Gold Plated Body	* 903-577P-51S	1A
	Angle Plug	Crimp	Solder	.128(3.3)‡	C61	P11	D1	Gold Plated Body	● 903-289P-51A	2
				.128(3.3)‡	C61	P11	D1	Gold Plated Body	●▲* 903-289P-51A2	2
				.128(3.3)‡	C61	P15	D1	Nickel Plated Body	* 903-367P-51A	2
				.128(3.3)‡	C61	P15	D1	Nickel Plated Body	●▲* 903-367P-51A2	2
				.128(3.3)‡	C61	P15	D1	Nickel Plated Body ★	903-367P-51A1	2
RG-178,196	Plug	Crimp	Solder	.128(3.3)‡	C61	P26	D1	Nickel Plated Body ★	903-429P-51A	3
				.100(2.5)‡	C60	P11	D1	Gold Plated Body	903-287P-51S	1
				.100(2.5)‡	C62	P11	D1	Gold Plated Body	● 903-509P-51S	1A
				.100(2.5)‡	C60	P15	D1	Nickel Plated Body	903-371P-51S	1
				.100(2.5)‡	C60	P15	D1	Gold Plated Body	* 903-578P-51S	1A
	Angle Plug	Crimp	Solder	.100(2.5)‡	C60	P15	D1	Nickel Plated Body	* 903-578P-51S1	1A
				.100(2.5)‡	C61	P11	D1	Gold Plated Body	903-291P-51A	2
				.100(2.5)‡	C61	P11	D1	Gold Plated Body	●▲* 903-291P-51A1	2
				.100(2.5)‡	C61	P15	D1	Nickel Plated Body	903-368P-51A	2
				.100(2.5)‡	C61	P15	D1	Nickel Plated Body	●▲* 903-368P-51A1	2
Dbl. Braid 316	Angle Plug	Crimp	Solder	.142(3.6)‡	C61	P22	D1	Nickel Plated Body	903-369P-51A	2
				.142(3.6)‡	C61	P15	D1	Nickel Plated Body	● * 903-369P-51A2	2
	Plug	Crimp	Solder	.142(3.6)‡	C60	P11	D1	Gold Plated Body	903-401P-51S	1
				.142(3.6)‡	C60	P11	D1	Gold Plated Body	* 903-579P-51S	1A
				.142(3.6)‡	C60	P15	D1	Nickel Plated Body	* 903-579P-51S1	1A
				.142(3.6)‡	C60	P15	D1	Nickel Plated Body		

‡ i.d. of outer crimp ferrule ★ Gold plated outer contact ▲ Distributor stocked * Diecast outer body ● Commercial grade

SMB 50 ohm Coaxial Connectors

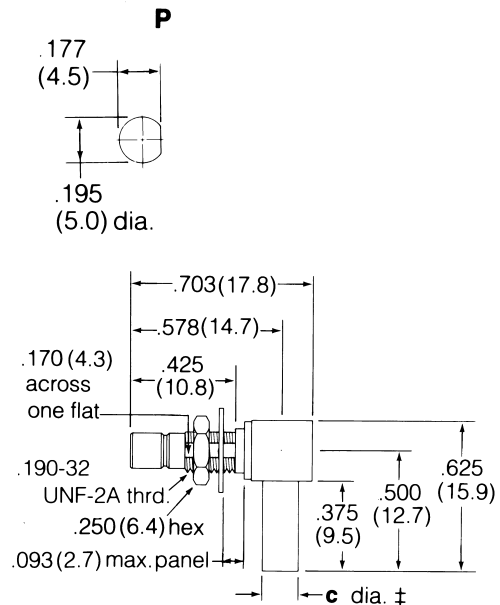
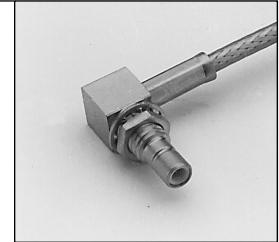
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Fig. 1



50Ω SMB Bulkhead Jacks
Braid Crimp/Solder Male Contact

Fig. 2



50Ω SMB Angle Bulkhead Jacks
Braid Crimp/Solder Male Contact

RG-174,179, 187,188, 316	903-505J-51S ▲● Gold Plated	RG-174,179, 187,188, 316	903-422J-51A Gold Plated
Dbl. Shield 316	903-505J-51S1 ▲● Gold Plated	Dbl. Shield 316	903-422J-51A2 Gold Plated

50 ohm SMB BULKHEAD & ANGLE BULKHEAD JACKS

Cable RG-/U	Connector Description	Cable Attachment		c Dia. In. (mm)	MTG Hole	CAI	Plt.	Ins.	Notes	Amphenol Number	Fig.
		Outer	Inner								
RG-174,179,187, 188,316	Bulkhead Jack	Crimp	Solder	.128(3.3)‡	P	C60	P15	D1	Gold Plated Body	▲● 903-505J-51S	1
	Angle Bulkhead Jack	Crimp	Solder	.128(3.3)‡	P	C61	P11	D1	Gold plated Body	903-422J-51A	2
Dbl. Shield 316	Bulkhead Jack	Crimp	Solder	.142(3.6)‡	P	C60	P15	D1	Gold Plated Body	▲● 903-505J-51S1	1
	Bulkhead Jack	Crimp	Solder	.142(3.6)‡	P	C61	P15	D1	Gold Plated Body	903-422J-51A2	2

▲ Distributor stocked

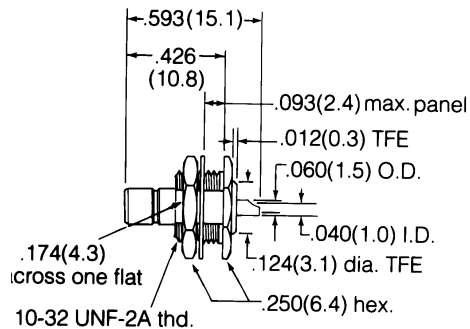
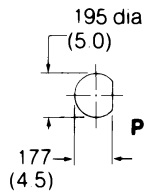
● Commercial grade

SMB

50 ohm Bulkhead Receptacles

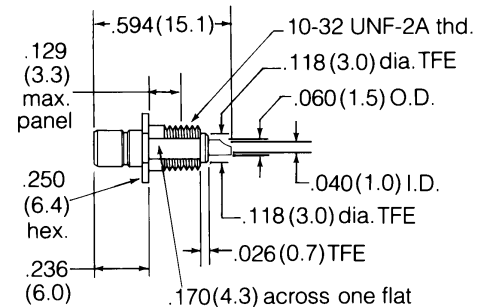
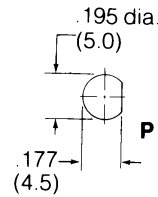
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Fig. 1



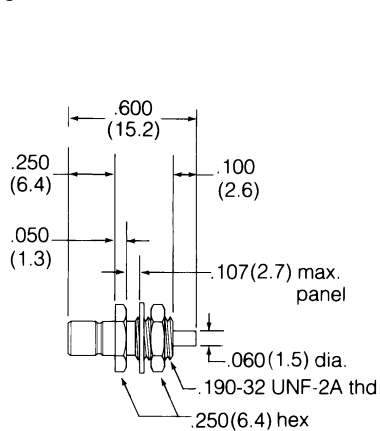
SMB Bulkhead Receptacle-Rear Mount
Male Contact/Solder Cup Terminal
903-305J-51R Gold Plated

Fig. 2

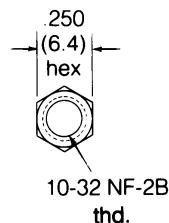
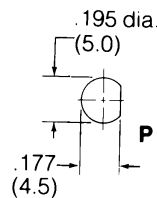


SMB Bulkhead Receptacle-Front Mount
Male Contact/Solder Cup Terminal
903-406J-51R ▲ □ Gold Plated

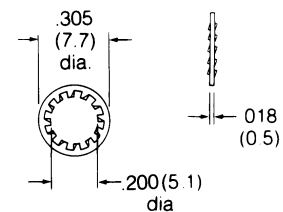
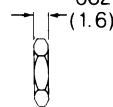
Fig. 3



SMB Bulkhead Receptacle
Front Mount
Male Contact/Post Terminal
903-402J-51R ● ▲ □ Gold Plated



Jam Nut for SMB Receptacles
903-10408-1 Gold Plated
903-10408-2 Nickel Plated



Lockwasher for SMB Receptacles
903-10409-1 Gold Plated
903-10409-2 Nickel Plated

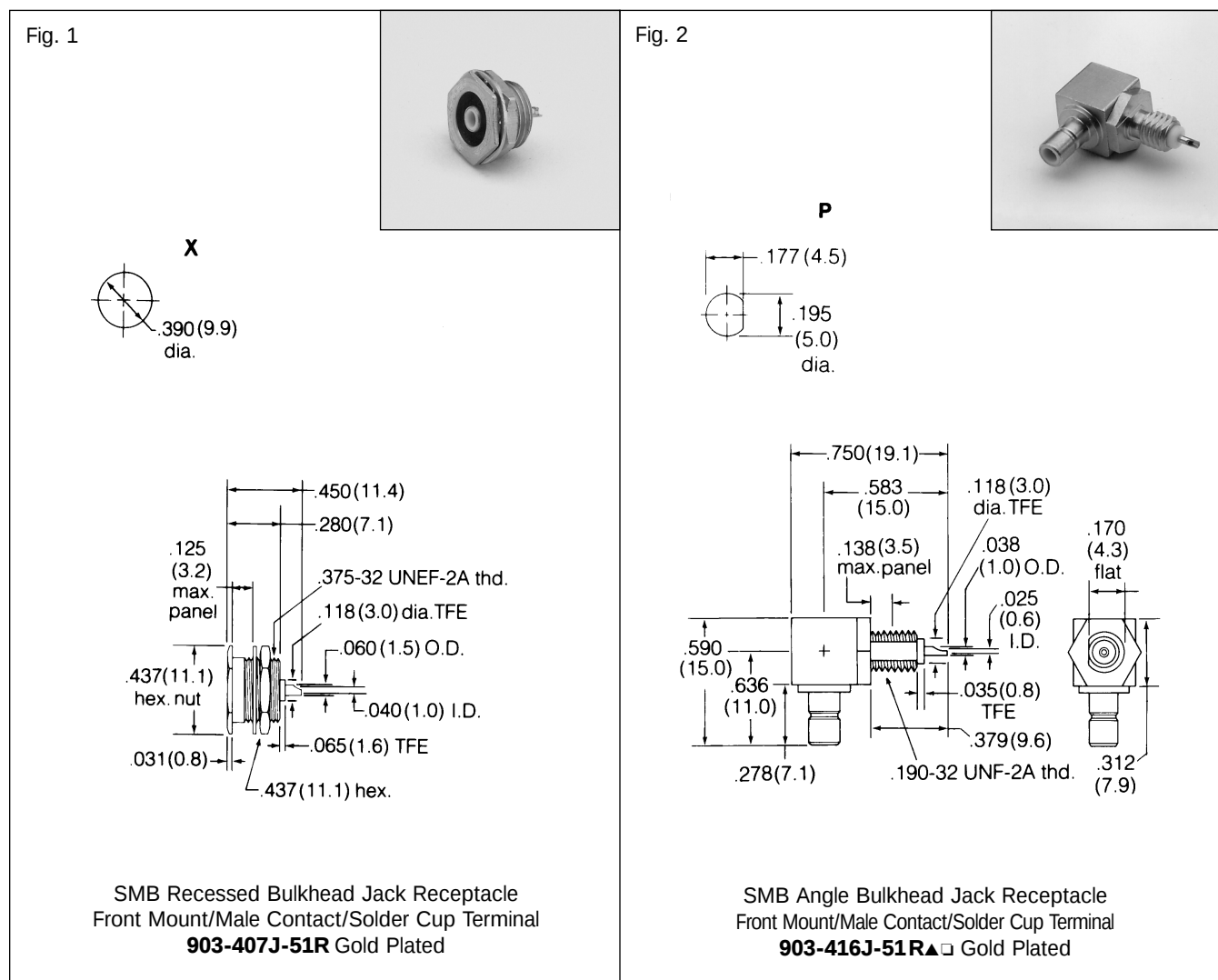
50 ohm SMB BULKHEAD JACK RECEPTACLES & ACCESSORIES – captive male contacts

Connector Description	Terminal Type	MTG Hole	Plt.	Ins	Construction Notes	Amphenol Number	Fig.
Bulkhead Jack Receptacle, Rear Mount	Solder Cup	P	P9	D1	Gold Plated Body	903-305J-51R	1
Bulkhead Jack Receptacle, Front Mount	Solder Cup	P	P11	D1	Gold Plated Body	▲ □ 903-406J-51R	2
Bulkhead Jack Receptacle, Front Mount	Blunt Post	P	P9	D1	Gold Plated Body	● ▲ □ 903-402J-51R	3
Jam Nut	—	—	—	—	See Fig. 3	903-10408-1, -2	3
Lockwasher	—	—	—	—	See Fig. 3	903-10409-1, -2	3

▲ Distributor stocked □ Jam Nut and Lockwasher sold separately. ● Commercial grade

SMB 50 ohm Bulkhead Receptacles

Amphenol®



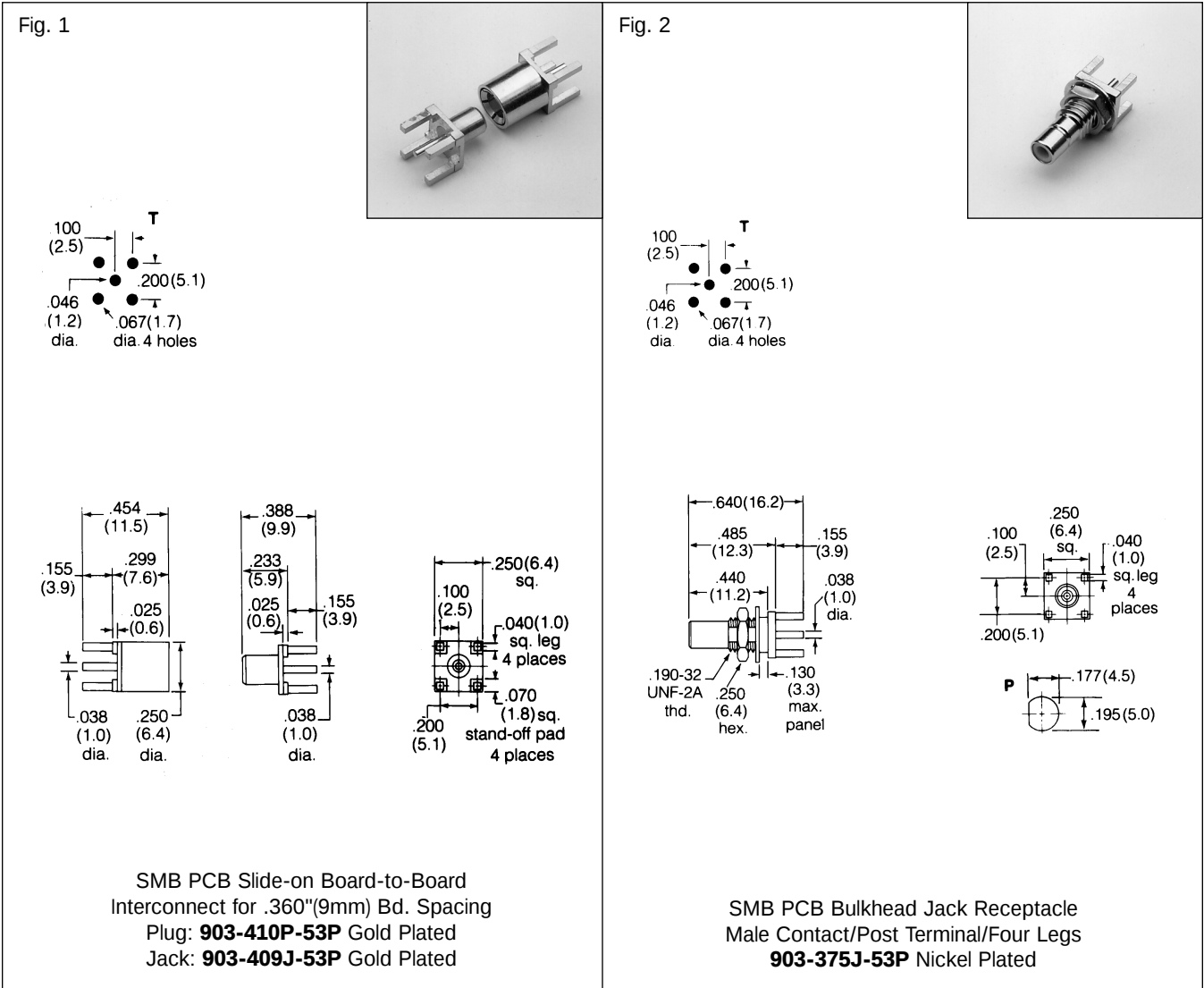
50 ohm SMB BULKHEAD JACK RECEPTACLES – captive male contacts

Connector Description	Terminal Type	MTG Hole	Plt.	Ins	Construction Notes	Amphenol Number	Fig.
Recessed Bulkhead Jack Receptacle, Front Mount	Solder Cup	X	P11	D1	Gold Plated Body	903-407J-51R	1
Angle Bulkhead Jack Receptacle, Front Mount	Solder Cup	P	P11	D1	Gold Plated Body	903-416J-51R	2

▲ Distributor stocked

□ Jam Nut and Lockwasher sold separately

SMB 50 ohm PCB Receptacles



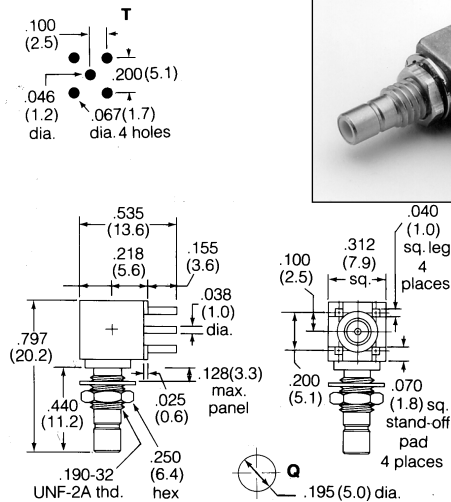
50 ohm SMB BULKHEAD JACK AND PRINTED CIRCUIT RECEPTACLES – captive male contacts

Connector Description	Terminal Type	MTG Hole	Plt.	Ins	Construction Notes	Amphenol Number	Fig.
PCB Slide-on Board-to-Board Interconnect for .360"(9mm) Bd. Spacing/Four Legs	Blunt Post	T	P9	D1	Plug/Gold Plated	903-410P-53P	1
					Jack/Gold Plated	903-409J-53P	
PCB Bulkhead Jack Receptacle/,Four Legs	Blunt Post	T/P	P6	D1	Nickel Body/No Stand-off Pads	903-375J-53P	2

SMB 50 ohm PCB Receptacles

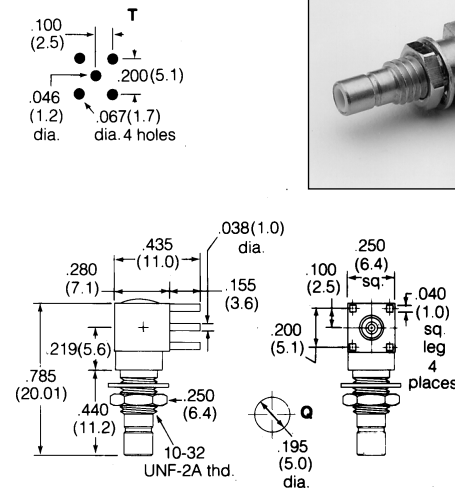
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Fig. 1



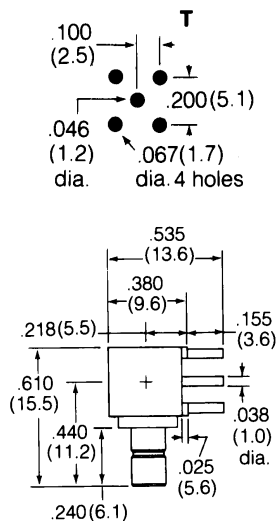
**SMB PCB Angle Bulkhead Receptacle
Male Contact/Four Legs/Leak Tight
903-413J-51A**
Tin Lead Plated Cube Body & Legs,
Gold Plated Interface & Contact

Fig. 2



**SMB PCB Angle Bulkhead Receptacle
Male Contact/Four Legs/No Stand-off Pads
903-376J-51A**
Tin Lead Plated Cube Body & Legs,
Gold Plated Interface & Contact

Fig. 3



**SMB PCB Angle Jack Receptacle
Male Contact/Four Legs/Leak Tight
903-373J-51A ▲**
Tin Lead Plated Cube Body & Legs,
Gold Plated Interface & Contact

50 ohm SMB BULKHEAD JACK AND PRINTED CIRCUIT RECEPTACLES – captive male contacts

Connector Description	Terminal Type	MTG Hole	Plt.	Ins	Construction Notes	Amphenol Number	Fig.
PCB Angle Bulkhead Jack Receptacle, Four Legs/Leak Tight	Blunt Post	T/Q	P16	D1	Tin Lead Plt. Cube Body & Legs Gold Plt. Interface & Contact	903-413J-51A	1
PCB Angle Bulkhead Jack Receptacle, Four Legs/No Stand-off Pads	Blunt Post	T/Q	P16	D1	Tin Lead Plt. Cube Body & Legs Gold Plt. Interface & Contact	903-376J-51A	2
PCB Angle Jack Receptacle Four Legs/Leak Tight	Blunt Post	T	P16	D1	Tin Lead Plt. Cube Body & Legs Gold Plt. Interface & Contact	▲ 903-373J-51A	3

▲ Distributor stocked

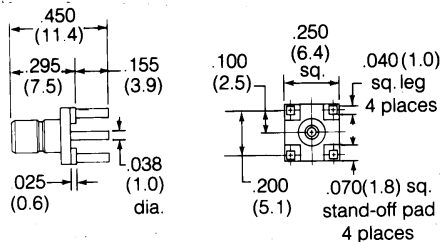
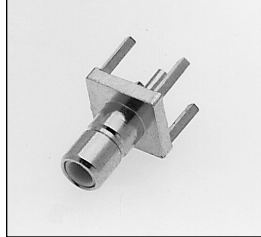
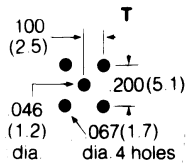
● Commercial grade

SMB

50 ohm PCB Receptacles

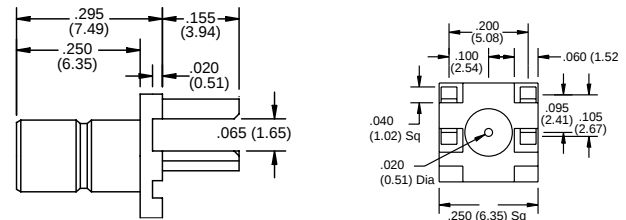
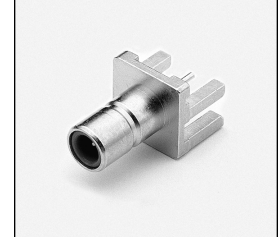
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Fig. 1



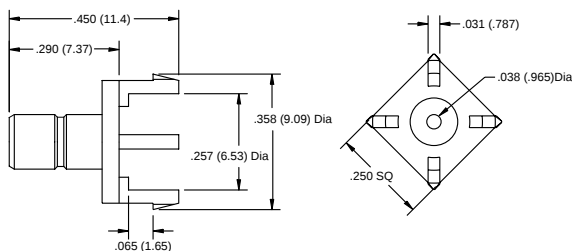
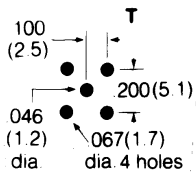
SMB PCB Receptacle Jack
Post Terminal/Four Legs
903-415J-51P Gold Plated
903-499J-51P3* Tin Plated Body & Legs
903-499J-51P2▲* Gold Plated

Fig. 2



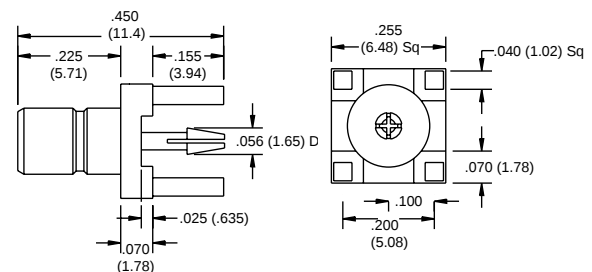
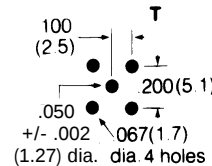
50Ω SMB PCB End Mount Jack Receptacle
Male Contact/Blunt Post Terminal
903-518J-51P Gold Plated
Gold Plated Contact

Fig. 3



SMB PCB Jack Receptacle
Board Lock
903-515J-51P Tin Lead Plt Body, Gold Plated Contact

Fig. 4



SMB PCB Receptacle Jack
Board Lock
903-499J-51P▲* Gold Plated
903-499J-51P1* Nickel Plated

50 ohm SMB PRINTED CIRCUIT RECEPTACLES

Connector Description	Terminal Type	MTG Hole	Plt.	Ins	Construction Notes	Amphenol Number	Fig.
PCB Jack Receptacle/Four Legs	Blunt Post	T	P11	D1	Gold Plated Body	903-415J-51P	1
			P6		Gold Plated Body	▲* 903-499J-51P2	
			P6		Tin Plated Body, Gold Plt. contact	* 903-499J-51P3	
PCB Bulkhead Jack Receptacle/Four Legs	Blunt Post	T	P9	D1	Gold Plt. Body	903-518J-51P	2
PCB Bulkhead Jack Receptacle/Four Legs	Blunt Post	T	P9	D1	Tin Lead Plt Body, Gold Plt. contact	903-515J-51P	3
PCB Bulkhead Jack Receptacle	Board Lock	T	P11	D1	Gold Plated Body	▲* 903-499J-51P	4
PCB Bulkhead Jack Receptacle	Board Lock	T	P11	D1	Nickel Plated Body	* 903-499J-51P1	

▲ Distributor stocked * Die cast outer body

SMB 75 ohm Coaxial Connectors

Amphenol®

SPECIFICATIONS

Amphenol standard 75 ohm SMB 903 series connectors are constructed in accordance with the requirements of MIL-C-39012 and their interface is in compliance with MIL-STD-348. These subminiature units feature positive lock mating as well as snap-on mating faces.

They are available in a variety of configurations and styles. This series has broadband performance with low reflection.

MATERIAL

Bodies	Brass per QQB-626, as specified, nickel (or gold) plated as listed
Center contacts	Female: beryllium copper, gold plated Male: brass or beryllium copper, gold plated
Outer contact	Nickel or gold plated as listed.
Crimp ferrules	Annealed copper alloy
Insulators	TFE

ELECTRICAL

Impedance	75 ohms
Frequency range	0-4 GHz with low reflection; usable to 10.0 GHz.
Voltage rating for RG-188/U cables	Sea level: 335 volts 70,000 ft: 85 volts
Dielectric withstanding voltage	1,000 VRMS
RF high potential withstanding voltage	RG-195/U series 500 VRMS
Corona level	RG-195/U series 400 min. volts @ 70K ft.
VSWR straight connectors	RG-196/U series 1.30 + .04 f (GHz) RG-188/U series 1.25 + .04 f (GHz)
right angle connectors	RG-196/U series 1.45 + .06 f (GHz) RG-188/U series 1.35 + .04 f (GHz)
Contact resistance	Center contact: initial, 6.0 milliohms; After environmental, 8.0 Outer contact: initial, 1.0 milliohms; After environmental, 1.5 Braid to body: initial, 1.0 milliohms; After environmental, N/A
Insulation resistance:	1000 megohms min.
RF leakage	-55 dB min. @ 2 - 3 GHz
Insertion loss: straight	0.30 dB @ 1.5 GHz
right angle	0.60 dB @ 1.5 GHz

* These characteristics are typical and may not apply to all connectors.

This series is also called SMZ.

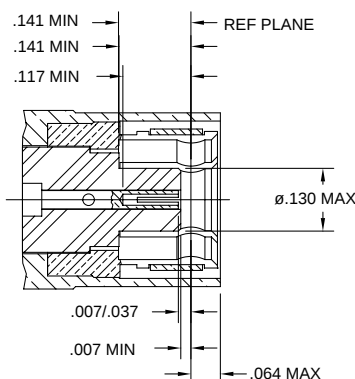
MECHANICAL

Mating	75 ohm snap-on coupling, per MIL-STD-348
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.

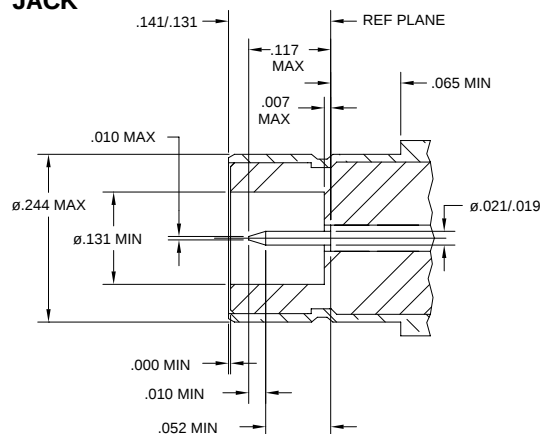
ENVIRONMENTAL

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) (15G'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.

PLUG



JACK



SMB 75 ohm Coaxial Connectors

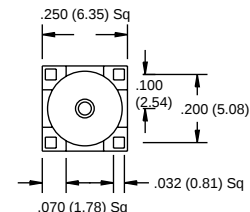
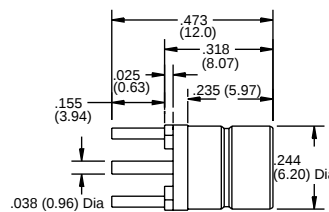
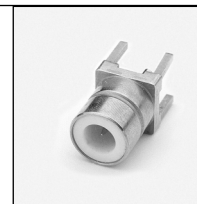
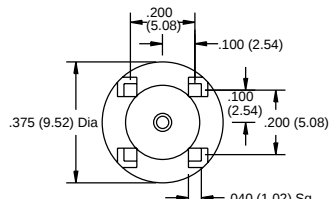
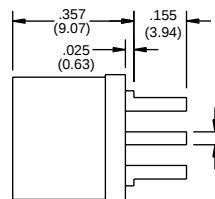
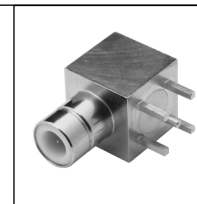
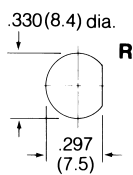
Amphenol®

Fig. 1 Fig. 1A 75Ω SMB Plug Braid Crimp/Solder Female Contact 903-152P-71S7 Positive Lock for 735A Cable 903-152P-71S Positive Lock for RG-180, 195 Gold Plated Body, Nickel Plt. Cpl. Ring 903-152P-71S3 Positive Lock for RG-179 Gold Plated Body, Nickel Plt. Cpl. Ring 903-574P-71S Positive Lock for RD-179 903-575P-71S Positive Lock for RG-179	Fig. 1 Fig. 1A	Fig. 2 75Ω SMB Plug Braid Crimp/Solder Female Contact/Gold Plt. 903-502P-71S for RG-179, Nickel Plated Body
Fig. 3 75Ω SMB Angle Plug Braid Crimp/Solder Female Contact 903-495P-71A Positive Lock for Belden 1694A RG-6 Type, Gold Plated Body, Nickel Plt. Cpl. Ring		Fig. 4 75Ω SMB Bulkhead Jack Braid Crimp/Solder Male Contact/Gold Plated 903-108J-71S for RG-179

75 ohm SMB PLUGS, ANGLE PLUGS & BULKHEAD JACKS

Cable RG-/U	Connector Description	Cable Attachment		c Dia In. (mm)	MTG Hole	CAI	Plt.	Ins.	Notes	Amphenol Number	Fig.
		Outer	Inner								
RG-179	Bulkhead Jack	Crimp	Solder	.128(3.3)‡	R	C60	P9	D1	Gold Plated Body	903-108J-71S	4
	Plug (Positive Lock)	Crimp	Solder	.128 (3.3)	—	C60	P9	D1	Nickel Plt coupling Ring	903-152P-71S3	1
	Plug (Positive Lock)	Crimp	Solder	.128 (3.3)	—	C60	P9	D1	Nickel Plt coupling Ring	903-575P-71S	1A
RD-179	Plug (Positive Lock)	Crimp	Solder	.128 (3.3)	—	C60	P9	D1	Nickel Plt coupling Ring	903-574P-71S	1A
RG-174, 179, 187, 188, 316	Plug	Crimp	Solder	.128(3.3)‡	—	C60	PCF	D1	Nickel Plated Body Nickel Plt Coupling Ring	903-502P-71S	2
RG-180, 195	Plug (Positive Lock)	Crimp	Solder	.180(4.6)‡	—	C60	PCF	D1	Gold Plated Body Nickel Plt Coupling Ring	903-152P-71S	1
Amphenol 621-4460-75	Angle Plug (Positive Lock)	Crimp	Solder	.300(7.6)‡	—	C61	PCF	D1	Gold Plated Body	903-495P-71A	3
735A	Plug (Positive Lock)	Crimp	Solder	.175(4.4)	—	C60	P9	D1	Gold Plated Body	903-152P-71S7	1

‡ i.d. of outer crimp ferrule



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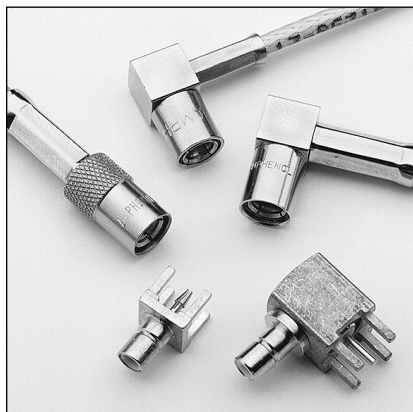
SMB 75 ohm High Density Coaxial Connectors

Amphenol®

Amphenol high density 75 ohm 903 Series SMB connectors conform to the requirements of MIL-C-39012 and the interface is in compliance with MIL-STD-348.

Features/Benefits

- Broadband capability through 4 GHz combines with compact, space saving design.
- Can easily be identified by their red Teflon insulators.
- Guided entry sleeve for positive mating.
- Closed entry contact to prevent "slide-by".
- Full range of high density SMB connector configurations is available, including end launch, printed circuit board and cable connectors.
- Series gives design engineers options in applications where physical space is limited.



SPECIFICATIONS

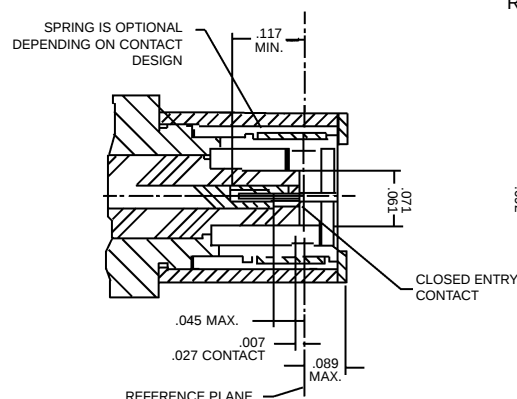
ELECTRICAL

Impedance	75 ohms
Frequency range	0-4 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, RG-196 type 1000 VRMS, RG-188 type
VSWR straight right angle connectors	735A type 1.25 + .04 f (GHz) 1.35 + .04 f (GHz)
Contact resistance	Center contact: initial, 6.0 milliohms; After environmental, 8.0 Outer contact: initial, 1.0 milliohms; After environmental, 1.5 Braid to body: initial, 1.0 milliohms; After environmental, N/A
Insulation resistance:	1000 megohms min.
RF leakage	-55 dB min. @ 2 - 3 GHz
Insertion loss: straight rt. angle	0.30 dB @ 1.5 GHz 0.60 dB @ 1.5 GHz

MATERIAL

Bodies	Brass per QQB-626 or zinc per ASTM B86-71, as specified, nickel (or gold) plated as listed
Center contacts	beryllium copper, gold plated
Outer contact	Nickel or gold plated as listed.
Crimp ferrules	Annealed copper alloy
Insulators	TFE - Red for I.D.

PLUG



MECHANICAL

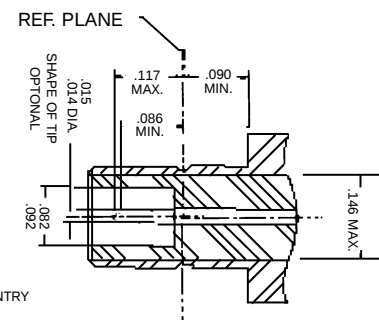
Mating	75 ohm snap-on coupling, per MIL-STD-348
Engagement forces	Initial 14 lbs. max. engagement. After 500 matings, 14 lbs. max engagement and disengagement. 2 lbs. min. disengagement.
Connector affixment to cable	Braid and jacket: hex crimp.
Cable affixment to center contact	Solder or crimp
Contact captivation	All types, except as noted
Cable retention	Equal to breaking strength of cable employed
Connector durability	500 mating and unmating cycles min.

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) (15G'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.

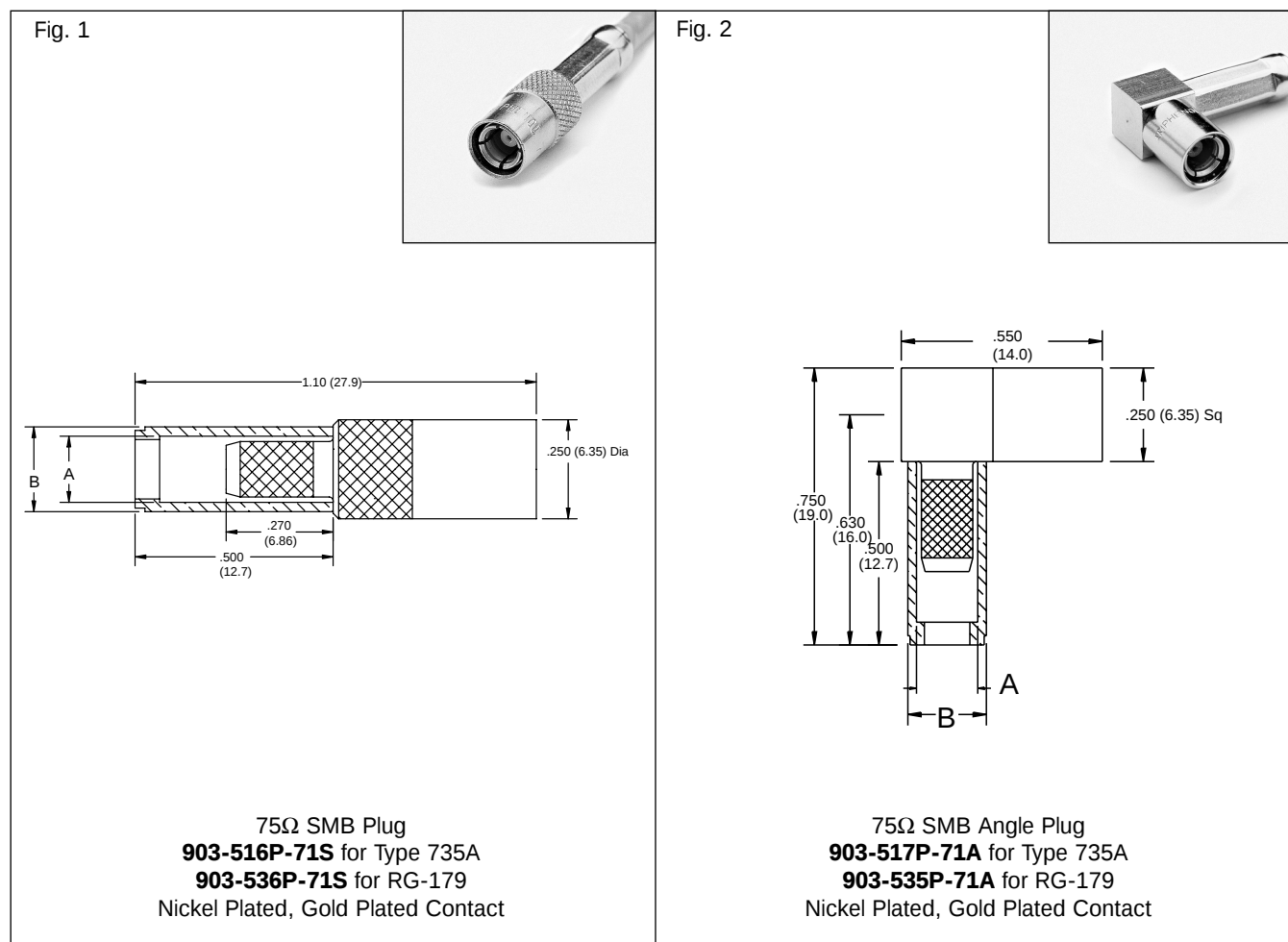
* These characteristics are typical and may not apply to all connectors.

JACK



SMB 75 ohm High Density Coaxial Connectors

Amphenol®

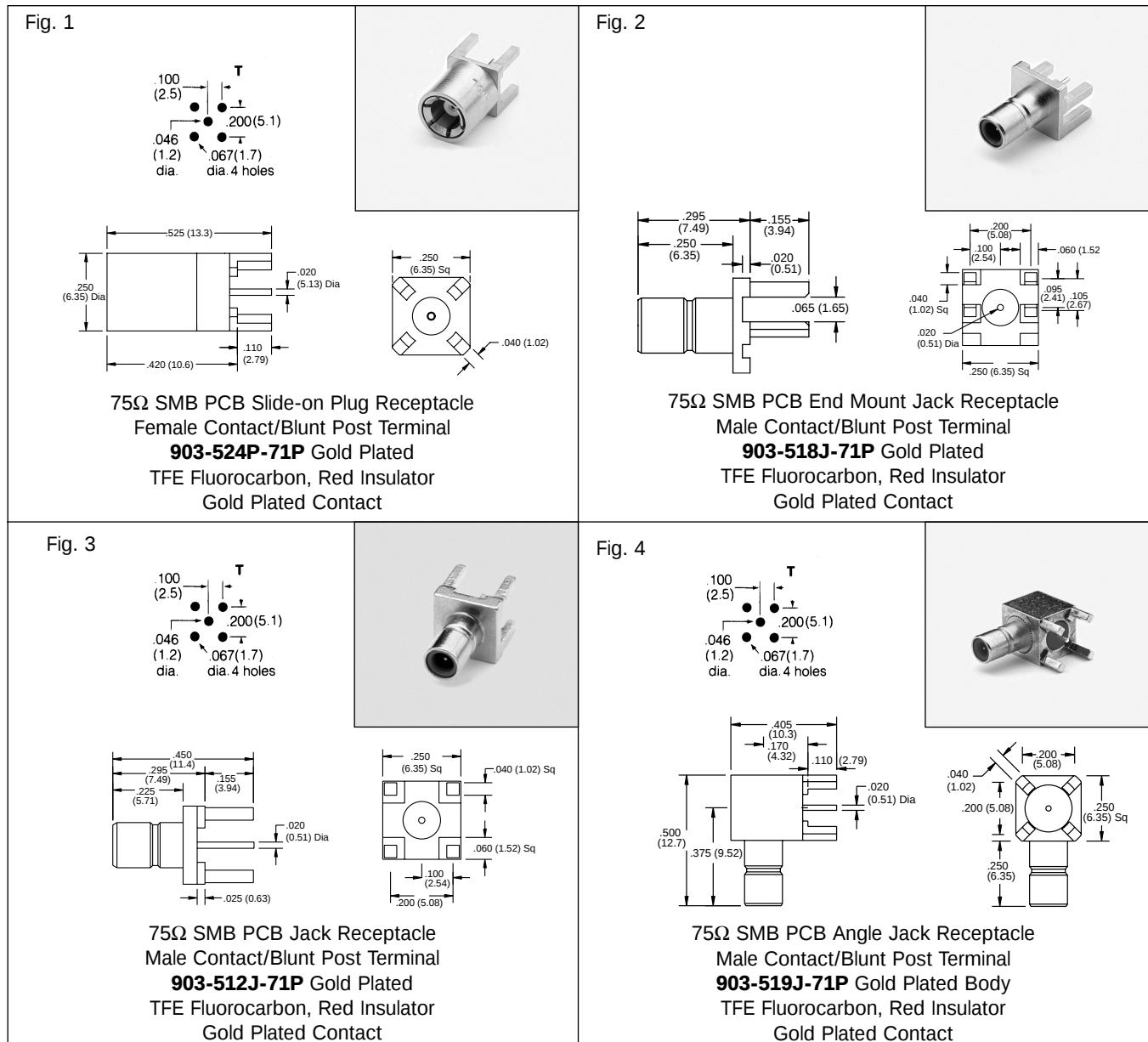


75 ohm SMB PLUGS & ANGLE PLUGS

Cable RG-/U	Connector Description	Cable Attachment		c Dia		CAI	Plt.	Ins.	Notes	Amphenol Number	Fig.
		Outer	Inner	A	B						
179	Plug	Crimp	Solder	.128(3.3)	.152(3.86)	C60	PCF	D32	Nickel Plated Body	903-536P-71S	1
	Angle Plug	Crimp	Solder	.128(3.3)	.152(3.86)	C61	PCF	D32	Nickel Plated Body	903-535P-71A	2
735A Type	Plug	Crimp	Solder	.167(4.24)	.214(5.43)	C60	PCF	D32	Nickel Plated Body	903-516P-71S	1
	Angle Plug	Crimp	Solder	.167(4.24)	.214(5.43)	C61	PCF	D32	Nickel Plated Body	903-517P-71A	2

SMB 75 ohm High Density Coaxial Connectors

Amphenol®



75 ohm SMB PRINTED CIRCUIT BOARD RECEPTACLES

Connector Description	Terminal Type	MTG Hole	Plt.	Ins	Construction Notes	Amphenol Number	Fig.
PCB Slide-on Plug Receptacle/Four Legs	Blunt Post	T	PCF	D32	Gold Plt. Body/Red TFE Ins.	903-524P-71P	1
PCB End mount Jack Receptacle/Four Legs	Blunt Post	—	PCF	D32	Gold Plt. Body/Red TFE Ins.	903-518J-71P	2
PCB Jack Receptacle/Four Legs	Blunt Post	T	PCF	D32	Gold Plt. Body/Red TFE Ins.	903-512J-71P	3
PCB Angle Jack Receptacle/Four Legs	Blunt Post	T	PCF	D32	Gold Plt. Body/Red TFE Ins.	903-519J-71P	4