

Description

SMA is an acronym for SubMiniature version A and was developed in the 1960's. It uses a threaded interface.

50 ohm SMA connectors are semi-precision, sub-miniature units which provide excellent electrical performance from DC to 18 Ghz. These high performance connectors are compact in size and mechanically have outstanding durability.

Built in accordance with MIL-C-39012 and CECC 22110/111. They can be mated with all connectors which meet these spec mating diameters regardless of manufacturer.

Features/Benefits

- Broadband performance DC to 18 GHz with low reflection stainless steel construction with 1/4-36 threaded coupling offers high performance in a compact design.
- Low cost Commercial Grade (Brass SMA) available in nickel or gold plating, flexible provides approximately 30% reduction in cost with 250 mating cycles.
- Various flexible cable groups including: .086 and .141 semi-rigid allows customer flexibility in their design with a durable connector.

Application

- | | |
|--------------------|--------------------|
| • Base Stations | • Mil/Aero |
| • Cable Assemblies | • PC/LAN |
| • Components | • Process Controls |
| • Instrumentation | • Telecom |



Stainless Steel

Specifications	56-57
Plugs	58-61
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Brass

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Plugs, Jacks	77-78
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Phase Adjustable Connectors

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ELECTRICAL

Impedance	50 ohms
Frequency range	.141" & .085" O.D. copper jacket semi-rigid cable. 0-18GHz. Flexible cables: 0-12.4 GHz.
Voltage rating	RG-55, 58, 141, 142, 223, 303: 500 volts peak RG-122, 174, 188, 316, 375 volts peak
Dielectric withstanding voltage	.141" & RG-58 group: 1,000 VRMS. .085" & RG-316 group: 750 VRMS.
VSWR (straight connectors)	.141" O.D. copper jacket cable: 1.05 + .005 f (GHz) RG-55 group: 1.15 + .011 f (GHz) RG-122 group: 1.15 + .02 f (GHz) RG-178 group: 1.20 + .025 f (GHz)
(angle connectors)	.141" O.D. copper jacket cable: 1.10 + .01 f (GHz) RG-55 group: 1.15 + .02 f (GHz) RG-122 group: 1.15 + .03 f (GHz) RG-178 group: 1.20 + .03 f (GHz)
Contact resistance	Center: 2.0 milliohms Body: 2.0 milliohms Braid to body: 0.5 milliohms
Insulation resistance:	5000 megohms
RF leakage	-60 dB minimum
Insertion loss:	.03 $\sqrt{f}$ (GHz) dB max.

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 (test cond. D)
Shock	MIL-Std. 202 method 213 (test cond. I) No discontinuity permitted.
Corrosion	MIL-Std. 202 method 101 (test cond. B) 5% salt solution.
Moisture resistance	MIL-Std. 202 method 106, except step 7b (vibration) omitted, and high humidity measurements do not apply.
Weatherproofing	Crimp type: heat shrink tubing Solder type: silicone rubber gaskets
Altitude	MIL-Std. 202 method 105 (test cond. C), no corona at 70,000 ft. .141" & RG-55 group: 250 VRMS. .085" & RG-122 group: 190 VRMS.

MECHANICAL

Mating	.250-36 threaded coupling
Mating torque	Minimum: 2 inch pounds 22 N.cm Recommended: 7 to 10 inch pounds 80-110 N.cm Maximum: 15 inch pounds 170 N.cm
Coupling nut retention	Axial force: 100 lbs. min., 300 N.cm Torque: 15 in. lbs. min. 76 N.cm Jacks: N/A
Connector affixment to cable	Crimp types, solder types
Cable affixment to center contact	Solder, except as noted
Contact captivation	All types, except as noted
Cable retention	Crimp type for RG-58, .141, 303=60 lbs min.; for RG-55, 142, 223 = 80 lbs min. 400 N.cm
Connector durability	500 mating and unmating cycles @ 12 cycles per min.

MATERIAL

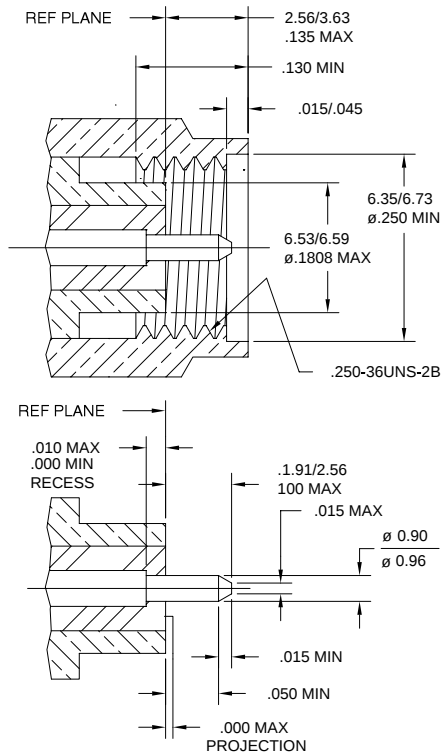
Bodies, coupling nuts, other metal parts (except as noted)	Non-magnetic stainless steel per QQ-S-764, Type 303.
Contacts	Beryllium copper per QQ-C-530, heat treated per MIL-H-7199.
Plating: Center contacts.	.00005" min. gold per MIL-G-45204, type 1, grade C. Gold over nickel unless otherwise requested.
Plating: Other metal parts	Gold plated or passivated to meet the finish and corrosion requirements of MIL-C-39012.
Insulators	TFE fluorocarbon per ASTM D1457.
Gaskets	Silicone rubber, per MIL-R-5847 and ZZ-R-765. class IIB, grade 65-75.
Lockwashers	Stainless steel, internal-tooth supplied with all bulkhead mounted connectors.
Crimp ferrules	Seamless copper tubing alloy # 122 (DHP), hard drawn to Rockwell 58-77 on 30-T scale per ASTM B75.

MILITARY SPECIFICATIONS

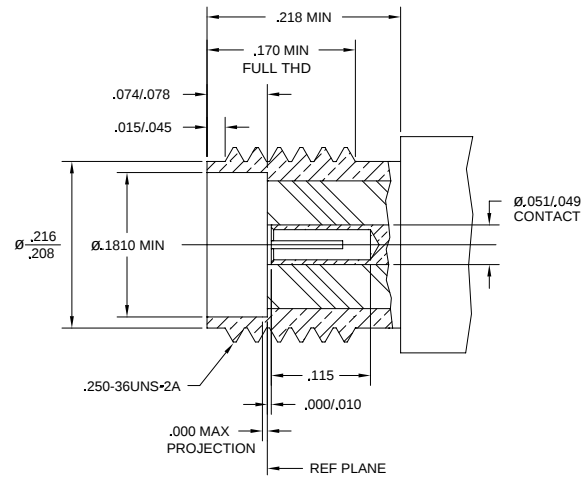
MIL-C-39012 & MIL-C-83517 SMA specification sheets	As applicable
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NOTE: These characteristics are typical and may not apply to all connectors.

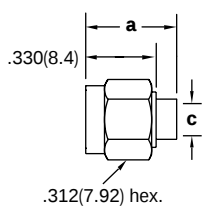
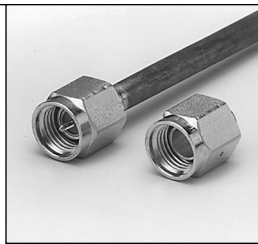
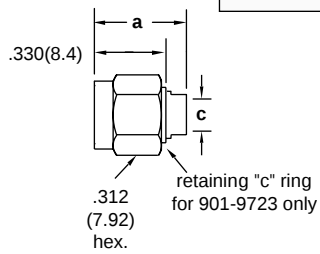
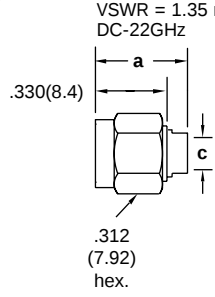
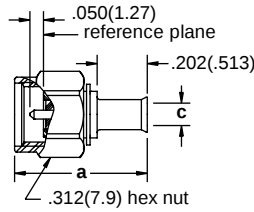
Plug



Jack



CECC = Cenelec Electronic Components Committee in Europe

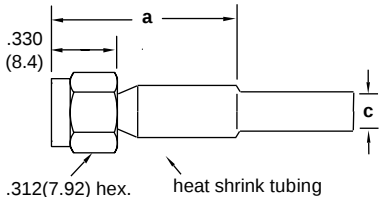
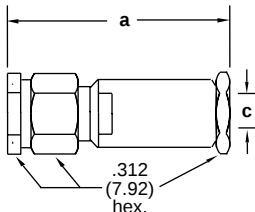
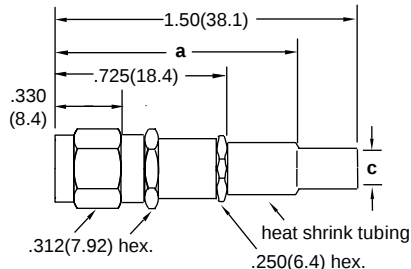
Fig. 1   SMA Plugs - Solder to Body 901-9201-2A for .085" (2.2mm) S/R, RG-405 (M17/133) Gold Plated Nut [VSWR = 1.07 + .008(GHz) DC-18GHz] 901-9201-2ASF for .085" (2.2mm) S/R, RG-405 (M17/130) Gold Plated Passivated Nut 901-9201-1A for .141" (3.6mm) S/R, RG-402 (M17/130) Gold Plated Nut, without Contact & Insulator 901-9201-1ASF for .141" (3.6mm) S/R, RG-402 (M17/130) Gold Plated Passivated Nut	Fig. 2 VSWR = 1.35 max. DC-22GHz   coupling nut for 901-9723 is .280(7.1) long. SMA Plugs - Solder to Body/ Pre-assembled Factory-Set Interface 901-9723▲ Passivated Nut, 100 piece Bulk Pack 901-9723-10 Passivated Nut, Single Pack for .085" (2.2mm) S/R, RG-405 (M17/133)
Fig. 3 VSWR = 1.35 max. DC-22GHz   901-9808▲ Gold Body, Passivated Nut 901-9808-1 Gold Body and Nut 901-9808-2 Gold Body, Passivated Nut Preassembled Factory Set Interface Single Pack for .141" (3.6mm) S/R , RG-402 (M17/130)	Fig. 4   SMA Plugs - Solder to Body/ Pre-assembled Factory-Set Interface 901-9805-HP Passivated Nut, Single Pack for .085" (2.2mm) S/R, RG-405 (M17/133)

SMA PLUGS FOR SEMI-RIGID CABLE – 50Ω impedance

Cable RG-/U	Cable Attachment		Dim. In. (mm)		CAI	Plt.	Ins.	Construction Notes	Amphenol Number	Fig.
	Outer	Inner	a	c						
.085" (2.2mm) Semi-Rigid RG-405 (M17/133)	Solder	Solder	.438(11.1)	.090(2.3)	C47	P10	D1	—	901-9201-2A	1
	Solder	Plugable	.400(10.2)	.090(2.3)	C48	P10	D1	—	901-9201-2ASF	1
	Solder	Plugable	.400(10.2)	.090(2.3)	C48	P10	D1	—	▲ 901-9723	2
	Solder	Plugable	.400(10.2)	.090(2.3)	C48	P11	D1	—	901-9723-10	2
	Solder	Plugable	.531(13.5)	.090(2.3)	C48	P11	D1	—	901-9805-HP	4
.141" (3.6mm) Semi-Rigid RG-402 (M17/130)	Solder	None	.445(11.3)	.145(3.7)	C50	P14	—	w/o Cont. & Ins.	901-9201-1A	1
	Solder	None	.445(11.3)	.145(3.7)	C50	P14	—	Gold plated body®	▲ 901-9201-1ASF	1
	Solder	Plugable	.438(11.1)	.145(3.7)	C48	P10	D1	Gold plated body®	901-9808	3
	Solder	Plugable	.438(11.1)	.145(3.7)	C48	P10	D1	Gold plated body®	901-9808-1	3
	Solder	Plugable	.438(11.1)	.145(3.7)	C48	P10	D1	Gold plated body®	901-9808-2	3

▲ distributor stocked

® passivated nut

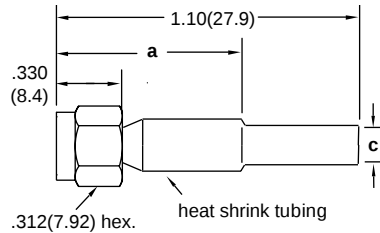
Fig. 1 	Fig. 2 	Fig. 3 
 SMA Plug Braid Solder to Body Captivated Solder Contact 901-9501-3 for RG-174, 179B, 187A, 188A, 316	 SMA Plugs BeCu Body, Solder to Nut 901-103-▲ for RG-55, 58, 142, 223 901-128-11-• (M39012/55-4007) for RG-174, 316	 SMA Plugs Braid Crimp/ Captivated Solder Contact 901-9601-1SF▲ Passivated Body & Nut for RG-55B, 142B, 223, 400 901-9601-3▲ Gold Plt. Body & Nut 901-9601-3SF▲ Passivated Body & Nut for RG-174, 179, 187, 188, 316

SMA PLUGS FOR FLEXIBLE CABLE – 50Ω impedance

Cable RG-/U	Cable Attachment		Dim. In. (mm)		CAI	Plt.	Ins.	Construction Notes	Mil. No. 39012/	Amphenol Number	Fig.
	Outer	Inner	a	c							
55, 58, 141, 142, 223	Clamp	Solder	.969(24.6)	.219(5.6)	C43	P9	D1	BeCu Body	—	▲ 901-103	2
55B, 142B, 223, 400	Crimp	Solder	1.10(28.0)	.220(5.6)	C56	P12	D1	Captivated Contact	—	▲ 901-9601-1SF	3
174, 179, 187, 188, 316	Crimp	Solder	1.10(28.0)	.128(3.3)	C56	P9	D1	Captivated Contact	—	▲ 901-9601-3	3
	Crimp	Solder	1.10(28.0)	.128(3.3)	C56	P12	D1	Captivated Contact	—	▲ 901-9601-3SF	3
174, 179B, 187A, 188A, 316	Solder	Solder	.690(17.5)	.128(3.3)	C46	P11	D1	—	—	901-9501-3	1
174, 316	Clamp	Solder	.984(25.0)	.114(2.9)	C44	P9	D1	BeCu Body	55-4007	• 901-128-11	2

• safety wire holes ▲ distributor stocked

Fig. 1



SMA Plugs
Braid Crimp/
Non-Captivated Solder Contact

901-9511-1▲

Gold Plt. Body & Nut

901-9511-1SF▲

Passivated Body & Nut
for RG-55B, 142B, 223, 400

901-9511-3▲

Gold Plt. Body & Nut

901-9511-3SF▲

Passivated Body & Nut
for RG-174, 179, 187, 188, 316

901-9511-12SF▲

Passivated Body & Nut
for Double Braid RG-316

901-9511-2

Gold Plt. Body & Nut

901-9511-2SF

Passivated Body & Nut
for RG-58

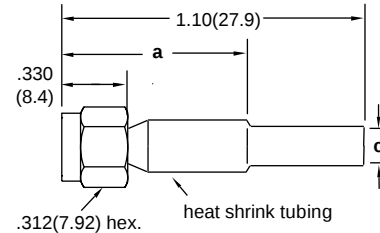
901-10011

Passivated Body & Nut
for LMR 240

901-10012

Passivated Body & Nut
for LMR 200

Fig. 2



SMA Plugs
Braid Crimp/
Crimp Center Contact
with Passivated Body & Nut

901-9511-1SFC

for RG-55B, 142B, 223, 400

901-101-15†

BeCu Body
(M39012/55-4502)

for RG-142B, 400

901-9511-3SFC

for RG-174, 179, 187, 188, 316

901-9511-12SFC

for Double Braid RG-316

SMA PLUGS FOR FLEXIBLE CABLE – 50Ω impedance

Cable RG-/U	Cable Attachment		Dim. In. (mm)		CAI	Plt.	Ins.	Construction Notes	Mil. No. 39012/	Amphenol Number	Fig.
	Outer	Inner	a	c							
55B, 142B, 223, 400	Crimp	Solder	.812(20.6)	.220(5.6)	C53	P10	D1	Non-Captive Contact	—	▲ 901-9511-1	1
55B, 142B, 223, 400	Crimp	Solder	.812(20.6)	.220(5.6)	C53	P13	D1	Non-Captive Contact	—	▲ 901-9511-1SF	1
58	Crimp	Solder	.812(20.6)	.206(5.2)	C53	P11	D1	—	—	901-9511-2	1
58	Crimp	Solder	.812(20.6)	.206(5.2)	C53	P10	D1	—	—	901-9511-2SF	1
174, 187, 188, 316	Crimp	Solder	.812(20.6)	.128(3.3)	C55	P10	D1	Non-Captive Contact	—	▲ 901-9511-3	1
174, 187, 188, 316	Crimp	Solder	.812(20.6)	.128(3.3)	C55	P13	D1	Non-Captive Contact	—	▲ 901-9511-3SF	1
Dbl. Braid RG-188, 316	Crimp	Solder	.812(20.6)	.142(3.6)	C55	P13	D1	Non-Captive Contact	—	▲ 901-9511-12SF	1
LMR 240	Crimp	Solder	1.03(26.2)	.261(6.6)	C53	P13	D1	Non-Captive Contact	—	901-10011	1
LMR 200	Crimp	Solder	.810(20.6)	.206(5.2)	C53	P13	D1	Non-Captive Contact	—	901-10012	1
55B, 142B, 223, 400	Crimp	Crimp	.812(20.6)	.220(5.6)	C55	P13	D1	—	—	901-9511-1SFC	2
142B, 400	Crimp	Crimp	1.03(26.2)	.220(5.6)	C55	P9	D1	BeCu Body	55-4502	† 901-101-15	2
174, 179, 187, 188, 316	Crimp	Crimp	.812(20.6)	.128(3.5)	C55	P13	D1	—	—	901-9511-3SFC	2
Dbl. Braid RG-188, 316	Crimp	Crimp	.812(20.6)	.142(3.6)	C55	P13	D1	—	—	901-9511-12SFC	2

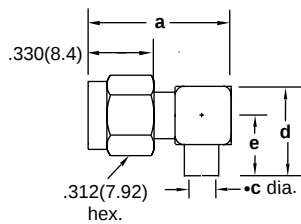
• safety wire holes † for crimping center contact, use Tool Handle M22520/1-01 and Crimp Die M22520/1-15 ▲ distributor stocked

SMA Right Angle Cable Plugs

Amphenol®

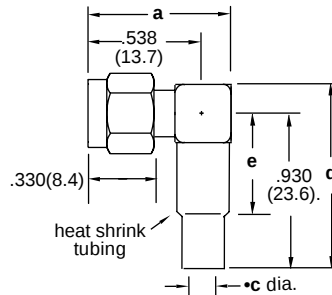
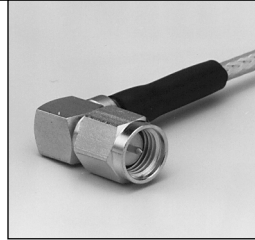
SMA

Fig. 1



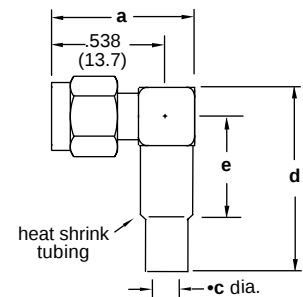
SMA Angle Plugs
Solder to Body
901-9221-2A
Gold Plated Nut
901-9221-2ASF
Passivated Nut
for 085" (2.2mm) S/R
RG-405 (M17/133)
901-9221-1A
Gold Plated Nut
901-9221-1ASF
Passivated Nut
for 141" (3.6mm) S/R
RG-402 (M17/130)

Fig. 2



SMA Angle Plugs Solder to Nut
901-9531-1▲
Gold Plt. Body & Nut
for RG-55, 142, 223, 400
901-9531-2
Gold Plt. Body & Nut
901-9531-2SF
Passivated Body for RG-58, 141
901-9531-1SF▲
Passivated Body for SF142B
901-9531-3▲
Gold Plt. Body & Nut
901-9531-3SF▲
Passivated Body
for RG-174, 179, 187, 188, 316
901-9531-12▲
Gold Plt. Body & Nut
901-9531-12SF▲
Passivated Body for Double Braid RG-316
901-10014
Passivated Body & Nut for LMR240

Fig. 3

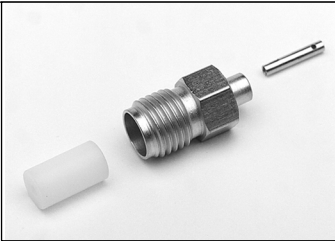
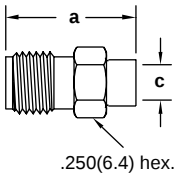
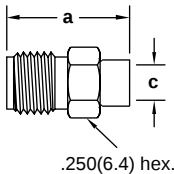
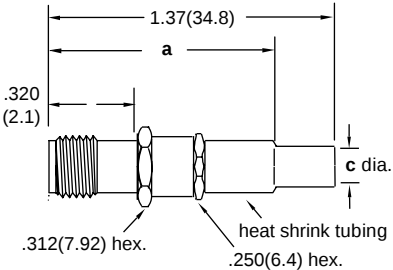


SMA Angle Plugs
Braid Solder,
Solder Contact
901-9521-3▲
for RG-174, 179, 187,
187A, 188, 188A, 316

SMA RIGHT ANGLE PLUGS FOR SEMI-RIGID & FLEXIBLE CABLE – 50Ω impedance

Cable RG-/U	Cable Attachment		Dim. In. (mm)				CAI	Plt.	Ins.	Notes	Mil. No. 39012/	Amphenol Number	Fig.
	Outer	Inner	a	c	d	e							
.085" (2.2mm) Semi-Rigid RG-405 (M17/133)	Solder	Solder	.680(17.3)	.090(2.3)	.430(10.9)	.305(7.7)	C49	P11	D1	—	—	901-9221-2A	1
	Solder	Solder	.680(17.3)	.090(2.3)	.430(10.9)	.305(7.7)	C49	P11	D1	—	—	901-9221-2ASF	1
.141" (2.2mm) Semi-Rigid RG-402 (M17/130)	Solder	Solder	.680(17.3)	.145(3.7)	.430(10.9)	.305(7.7)	C49	P11	D1	—	—	901-9221-1A	1
	Solder	Solder	.680(17.3)	.145(3.7)	.430(10.9)	.305(7.7)	C49	P11	D1	—	—	901-9221-1ASF	1
55, 141, 142, 223, 400	Crimp	Solder	.682(17.3)	.220(5.6)	1.05(26.7)	.550(14.0)	C53	P11	D1	Cap. Cont.	—	▲ 901-9531-1	2
58, 141	Crimp	Solder	.682(17.3)	.206(5.2)	1.05(26.7)	.550(14.0)	C53	P11	D1	—	—	901-9531-2	2
	Crimp	Solder	.682(17.3)	.206(5.2)	1.05(26.7)	.550(14.0)	C53	P13	D1	—	—	901-9531-2SF	2
174, 187, 188, 316	Crimp	Solder	.682(17.3)	.128(3.3)	1.05(26.7)	.550(14.0)	C57	P11	D1	Cap. Cont.	—	▲ 901-9531-3	2
	Crimp	Solder	.682(17.3)	.128(3.3)	1.05(26.7)	.550(14.0)	C57	P13	D1	Cap. Cont.	—	▲ 901-9531-3SF	2
174, 179, 187, 187A, 188, 188A, 316	Solder	Solder	.675(17.1)	.128(3.3)	1.12(28.4)	.440(11.2)	C46	P11	D1	—	—	▲ 901-9521-3	3
SF 142B, Times AA-2423	Crimp	Solder	.675(17.1)	.219(5.6)	1.06(26.9)	.475(12.1)	C53	P13	D1	—	—	▲ 901-9531-1SF	2
Double Braid RG-316	Crimp	Solder	.682(17.3)	.142(3.6)	1.05(26.7)	.550(14.0)	C57	P11	D1	Cap. Cont.	—	▲ 901-9531-12	2
	Crimp	Solder	.682(17.3)	.142(3.6)	1.05(26.7)	.550(14.0)	C57	P13	D1	Cap. Cont.	—	▲ 901-9531-12SF	2
LMR 240	Crimp	Solder	.682(17.3)	.261(1.7)	1.00(25.4)	.685(17.4)	C57	P13	D1	—	—	901-10014	2

▲ distributor stocked

Fig. 1   SMA Jacks Solder to Body Solder Center Contact 901-9202-1A for .141" (3.6mm) S/R RG-402 (M17/130) 901-9202-2A for .085" (2.2mm) S/R RG-405 (M17/133)	Fig. 2   SMA Jack Solder to Body Pre-assembled Center Contact 901-9704 Gold Plated for .141" (3.6mm) S/R RG-402 (M17/130)	Fig. 3   SMA Jacks Braid Crimp Solder Captive Contact 901-9602-1 Gold Plated, 901-9602-1SF Passivated for RG-55B, 142B, 223, 400 901-9602-3 Gold Plated, 901-9602-3SF Passivated for RG-174, 179, 187, 188, 316 901-9602-12SF Passivated for Double Braid RG-316
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SMA JACKS FOR SEMI-RIGID & FLEXIBLE CABLES – 50Ω Impedance

Cable RG-/U	Cable Attachment		Dimensions In. (mm)		CAI	Plt.	Ins.	Notes	Amphenol Number	Fig.
	Outer	Inner	a	c						
.085" (3.6mm) Semi -Rigid (RG-405) (M17/133)	Solder to Body	Solder	.500(12.7)	.088(2.2)	C47	P9	D1	—	901-9202-2A	1
.141" (3.6mm) Semi -Rigid RG-402 (M17/130)	Solder to Body	Solder	.500(12.7)	.144(3.7)	C47	P10	D1	—	901-9202-1A	1
	Solder to Body	Solder	.500(12.7)	.144(3.7)	C59	P11	D1	Pre-assembled Cont.	901-9704	2
55, 142, 223, 400	Crimp	Solder	.965(24.5)	.220(5.6)	C56	P9	D1	Captive Contact	901-9602-1	3
	Crimp	Solder	.965(24.5)	.220(5.6)	C56	P12	D1	Captive Contact	901-9602-1SF	3
174, 179, 187, 188, 316	Crimp	Solder	.965(24.5)	.128(3.3)	C56	P9	D1	Captive Contact	901-9602-3	3
	Crimp	Solder	.965(24.5)	.128(3.3)	C56	P12	D1	Captive Contact	901-9602-3SF	3
Double Braid RG-316	Crimp	Solder	.965(24.5)	.142(3.6)	C56	P12	D1	Captive Contact	901-9602-12SF	3

SMA Stainless Steel Cable Jacks

Amphenol®

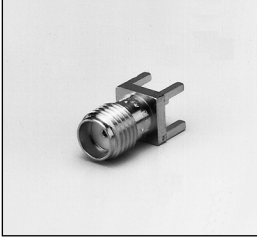
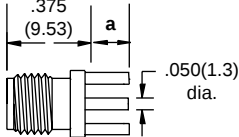
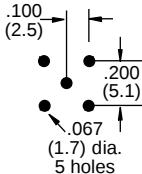
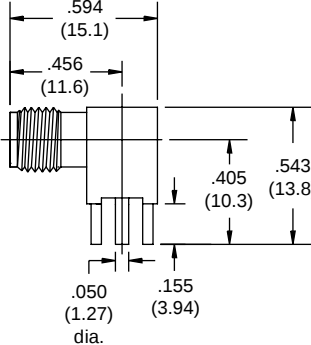
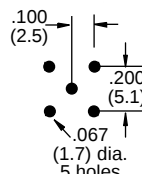
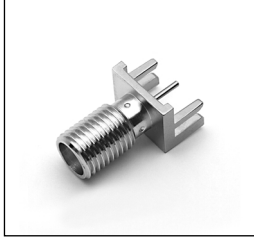
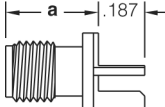
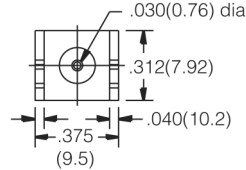
SMA

Fig. 1 SMA Bulkhead Jacks Solder to Body Solder Center Contact Gold Plated 901-9210-1 for .141" (3.6mm) S/R RG-402 (M17/130) 901-9210-2 for .085" (2.2mm) S/R RG-405 (M17/133)	Fig. 2 SMA Bulkhead Jacks Braid Crimp Captive Contact Solder Center Contact 901-9610-1SF▲ Passivated for RG-55B, 142B, 223, 400 901-9610-3▲ Gold Plated 901-9610-3SF▲ Passivated for RG174, 179, 187, 188, 316 901-9610-12SF Passivated for Double Braid RG-316 901-10015 Passivated for LMR 240	Fig. 3 SMA Bulkhead Jacks Braid Crimp Solder Center Contact 901-10021-1SF▲ Passivated for RG-55B, 142B, 223, 400 901-10021-3SF▲ Passivated for RG174, 179, 187, 188, 316 901-10021-12SF Passivated for Double Braid RG-316
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SMA BULKHEAD JACKS FOR SEMI-RIGID & FLEXIBLE CABLES – 50Ω Impedance

Cable RG-/U	Cable Attachment		Dimensions In. (mm)		CAI	Plt.	Ins.	Notes	Amphenol Number	Fig.
	Outer	Inner	a	c						
.085" (2.2mm) Semi-Rigid RG-405 (M17/133)	Solder to Body	Solder	.750(19.1)	.090(2.3)	C47	P9	D1	—	901-9210-2	1
.141" (3.6mm) Semi-Rigid RG-402 (M17/130)	Solder to Body	Solder	.750(19.1)	1.44(3.7)	C47	P10	D1	—	901-9210-1	1
55, 142, 223, 400	Crimp	Solder	1.50(38.1)	.220(5.6)	C56	P13	D1	Capt. Contact	▲ 901-9610-1SF	2
	Crimp	Solder	1.50(38.1)	.220(5.6)	C56	P13	D1	Non Capt. Contact	▲ 901-10021-1SF	3
174, 179, 187, 188, 316	Crimp	Solder	1.50(38.1)	.128(3.3)	C56	P11	D1	Capt. Contact	▲ 901-9610-3	2
	Crimp	Solder	1.50(38.1)	.128(3.3)	C56	P11	D1	Non Capt. Contact	▲ 901-10021-3SF	3
	Crimp	Solder	1.50(38.1)	.128(3.3)	C56	P13	D1	Capt. Contact	▲ 901-9610-3SF	2
Double Braid 316	Crimp	Solder	1.50(38.1)	.128(3.3)	C56	P13	D1	Non Capt. Contact	▲ 901-10021-12SF	3
	Crimp	Solder	1.50(38.1)	.142(3.6)	C56	P13	D1	Capt. Contact	901-9610-12SF	2
LMR 240	Crimp	Solder	1.08(27.4)	.261(6.6)	C56	P13	D1	Capt. Contact	901-10015	2

▲ distributor stocked

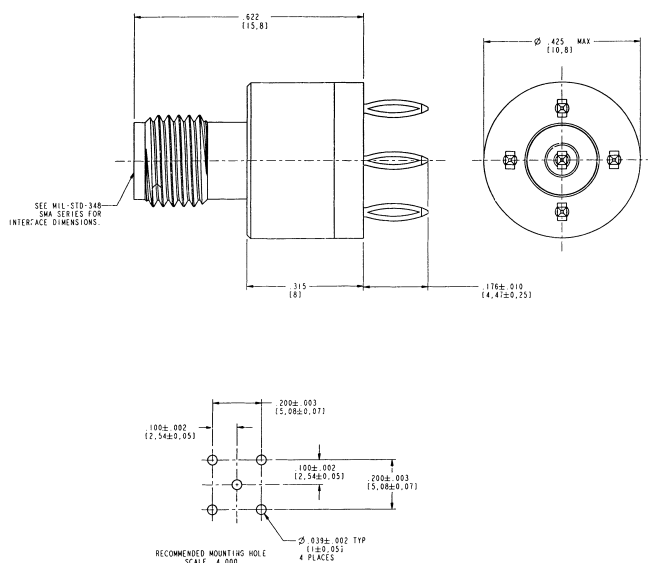
Fig. 1    SMA Printed Circuit Receptacle Gold Plated Blunt Post Terminal Four Legs 901-144▲ .155(3.9) Legs & Term. 901-144-2 .105(2.7) Solder Dipped Legs & Term. 901-144-3 .155(3.9) Solder Dipped Legs & Term. 901-144-4 .200(5.1) Legs & Term with Stand-off Pads	Fig. 2    SMA Printed Circuit Receptacle Gold Plated Blunt Post Terminal Four Legs .025 Stand-off Pads 901-143▲ .155(3.9) Legs & Term. 901-143-3 .155(3.9) Solder Dipped Legs & Term. 901-143-4 .105(2.7) Solder Dipped Legs & Term.	Fig. 3    SMA Printed Circuit Receptacle Edge Mount 901-9850 for .062" Printed Circuit Board 901-10003 for .062" Printed Circuit Board 901-10019 for .032" Printed Circuit Board
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SMA PRINTED CIRCUIT RECEPTACLES – female contacts

Description	Terminal Type	Plt.	Ins.	MTG Hole	Construction Notes		Dim. a	Amphenol Number	Fig.
Printed Circuit Board Panel Jack Receptacle	Blunt Post	P11	D1	T	Captive Contact	—	.155(3.9)	▲ 901-144	1
						Solder Dipped Legs & Term	.105(2.7)	901-144-2	1
						Solder Dipped Legs & Term	.155(3.9)	901-144-3	1
						.025 Stand-off Pads	.200(5.1)	901-144-4	1
Printed Circuit Board Angle Jack Receptacle	Blunt Post	P11	D1	T	.025 Stand-off Pads	—	.155(3.9)	▲ 901-143	2
						Solder Dipped Legs & Term	.155(3.9)	901-143-3	2
						Solder Dipped Legs & Term	.105(2.7)	901-143-4	2
Printed Circuit Board Edge Mt Jack Receptacle	Blunt Post	P10	D1	—	For .062" Thick PCB	Brass Body	.475 (12)	901-9850	3
	Blunt Post	P11	D1	—	For .062" Thick PCB	Brass Body	.375 (9.5)	901-10003	3
	Blunt Post	P11	D1	—	For .032" Thick PCB	Brass Body	.350(8.9)	901-10019	3

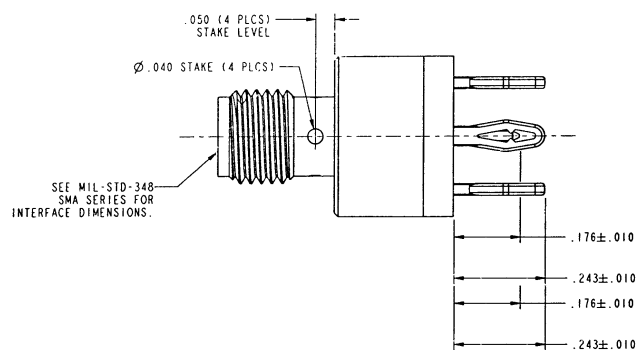
▲ distributor stocked

Fig. 1



SMA PCB Press Fit Jack
901-144-PFD
Compliant Pin

Fig. 2



SMA PCB Press Fit Jack
High Retention
901-144-PF8
Compliant Pin

SMA PCB PRESS FIT JACKS

Description	Terminal Type	Plt.	Ins.	Construction Notes	Amphenol Number	Fig.
SMA PCB Press-Fit Jack	Compliant Pin	P11	D1	Gold Plated Body, Legs Tin/Lead	901-144-PFD	1
SMA PCB Press-Fit Jack	Compliant Pin	P11	D1	Gold Plated Body, Legs Tin/Lead	901-44-PF8	2

SMA

Panel Jack Receptacles – 4-hole Flange

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Fig. 1 SMA Panel Jack Receptacle 4-Hole Square Flange Mount Solder Cup Terminal 901-9215 Gold Plated Body 901-9215-SF Passivated Body	Fig. 2 SMA Panel Jack Receptacle 4-Hole Square Flange Mount Post Terminal Flush TFE Countersink Flange Holes 901-9758	Fig. 3 SMA Panel Jack Receptacle 4-Hole Square Flange Mount Slot Terminal 901-9204-4CC Gold Plated Body 901-9204-4CCSF Passivated Body 901-9204-3CCSF Passivated Body
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SMA PANEL JACK RECEPTACLES – 4-hole square flange mount

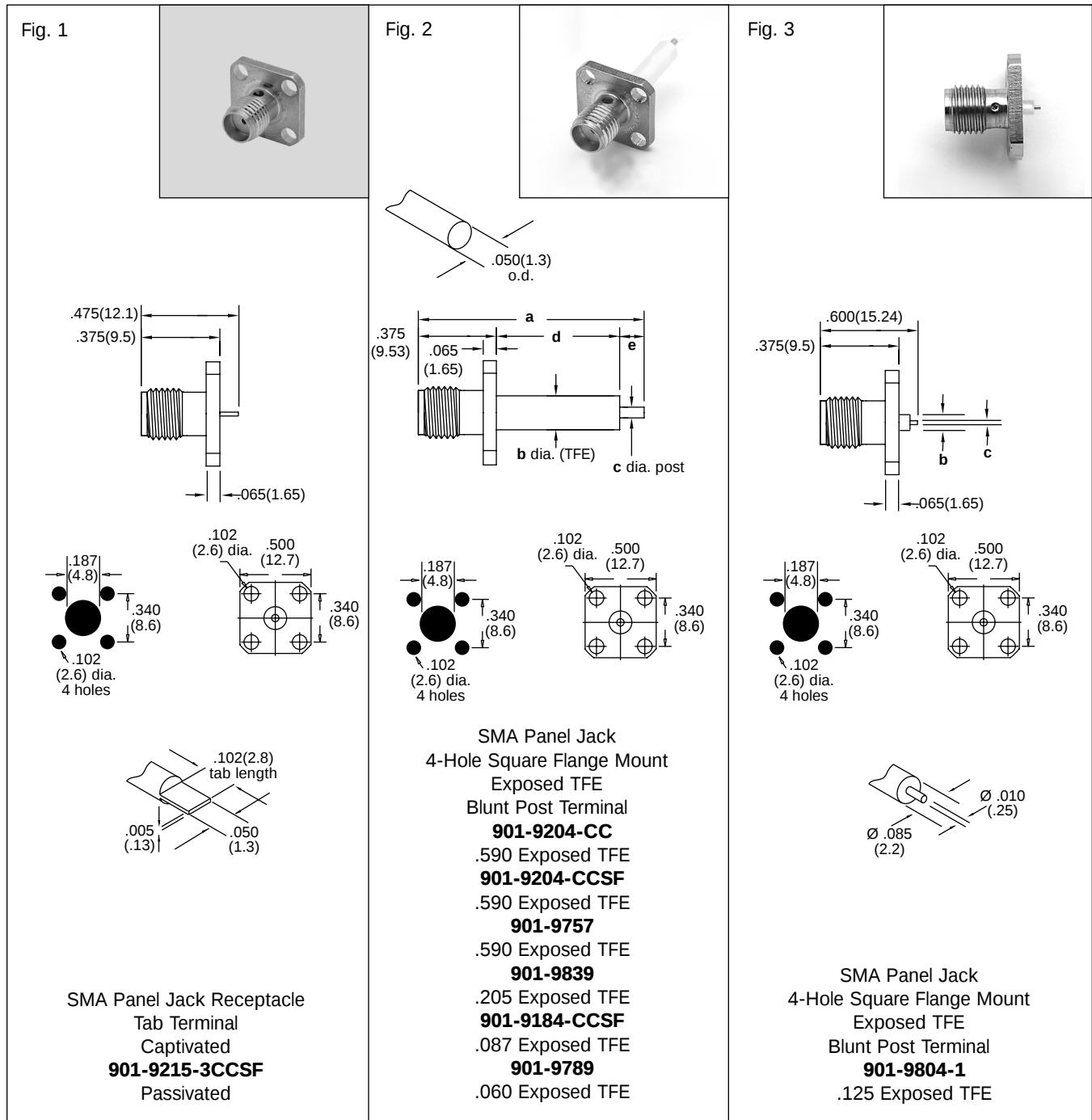
Terminal Type	Dimensions In. (mm)		Plt.	Ins.	Notes	Amphenol Number	Fig.
	a	c					
Solder Cup .200"(5.1mm) Long	.575(14.6)	.375(9.5)	P10	D1	Captive Contact, Gold Plt. Body	901-9215	1
	.575(14.6)	.375(9.5)	P13	D1	Captive Contact, Passivated Body	901-9215-SF	1
Slot .015"(0.4mm) Wide	.425(10.8)	.375(9.5)	P9	D1	Captive Contact, Gold Plt. Body	901-9204-4CC	3
	.425(10.8)	.375(9.5)	P12	D1	Captive Contact, Passivated Body	901-9204-4CCSF	3
Slot .030"(0.8mm) Wide	.425(10.8)	.375(9.5)	P12	D1	Captive Contact, Passivated Body	901-9204-3CCSF	3
Blunt Post .115"(2.9mm) Long	.490(12.4)	.375(9.5)	P13	D1	Captive Contact, Passivated Body	901-9758	2

SMA

Panel Jack Receptacles – 4-hole Flange

Amphenol®

SMA



SMA PANEL JACK RECEPTACLES – 4-hole square flange mount

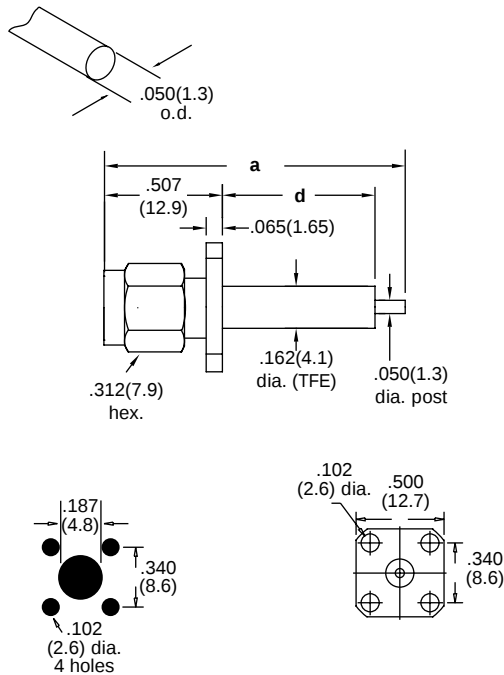
Terminal Type	Dimensions In. (mm)					Plt.	Ins.	Amphenol Number	Fig.
	a	b	c	d	e				
Blunt Post	1.08(27.4)	.162(4.1) dia	.050(1.3) dia	.590(15.0)	.115(2.9)	P9	D1	901-9204-CC	2
	1.08(27.4)	.162(4.1) dia	.050(1.3) dia	.590(15.0)	.115(2.9)	P13	D1	901-9204-CCSF	2
Blunt Post	1.08(27.4)	.162(4.1) dia	.050(1.3) dia	.590(15.0)	.115(2.9)	P13	D1	901-9757	2
Blunt Post	.640(16.2)	.162(4.1) dia	.050(1.3) dia	.205(5.2)	.060(1.5)	P13	D1	901-9839	2
Blunt Post	.562(14.3)	.162(4.1) dia	.050(1.3) dia	.087(2.2)	.100(2.5)	P13	D1	901-9184-CCSF	2
Blunt Post	.560(14.2)	.162(4.1) dia	.050(1.3) dia	.060(1.5)	.125(3.2)	P13	D1	901-9789	2
Blunt Post, Solder Dipped	—	.085(2.2) dia	.010(0.3) dia	—	—	P13	D1	901-9804-1	3
Tab ± .100 (2.5) Long	Captive Contact, Flush TFE, Conforms to M83517/1-31004 (NQ)*					P12	D1	901-9215-3CCSF	1

SMA

Panel Plug Receptacles – 4-hole Flange

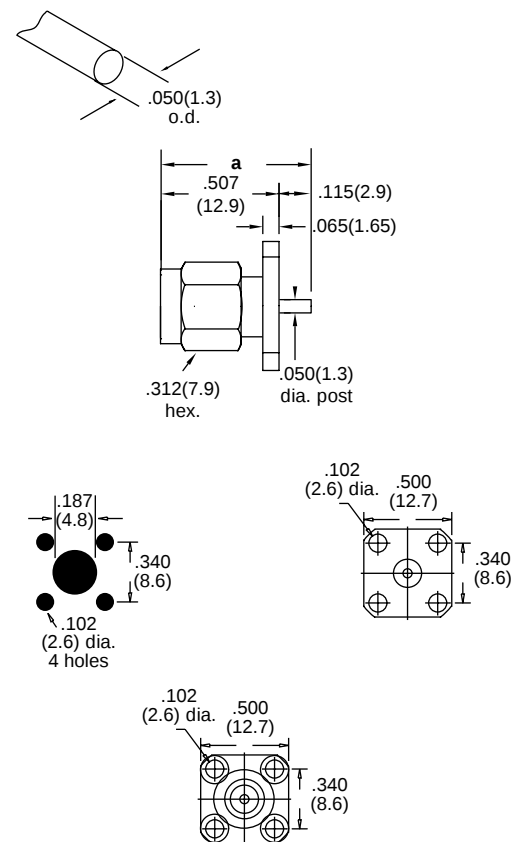
Amphenol®

Fig. 1



SMA Panel Plug Receptacle
4-Hole Square Flange Mount
.062 dia. Exposed TFE
.050 dia. Post Terminal
901-9214-CC
Gold Plated
901-9214-CCSF
Passivated
901-9788
Passivated with Conductive Epoxy Cap

Fig. 2



SMA Panel Plug Receptacles
4-Hole Square Flange Mount
Flush TFE
.050 dia. Post Terminal
901-9767
901-9760
(Countersink Flange Holes)

SMA PANEL PLUG RECEPTACLES – 4-hole square flange

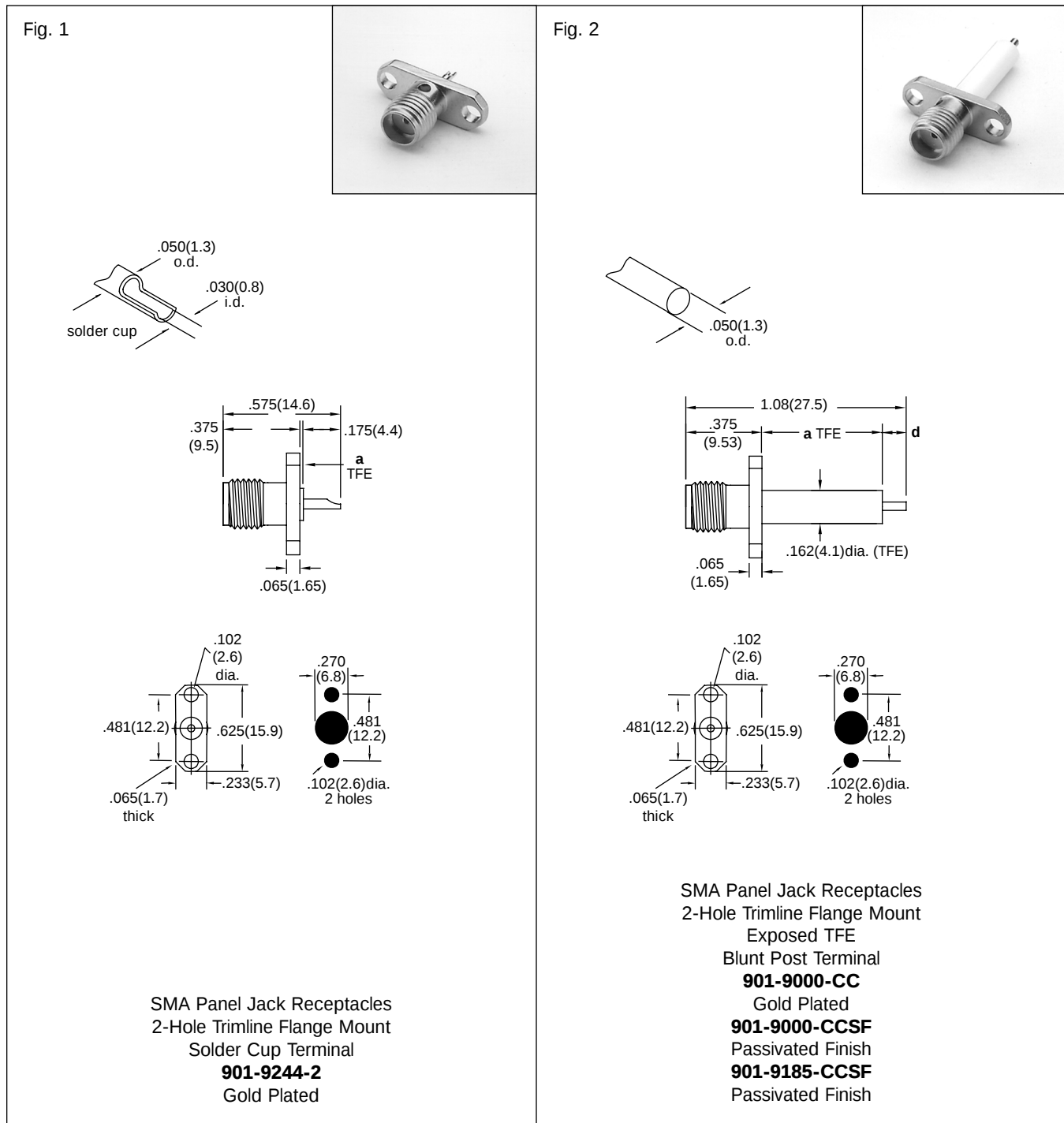
Description	Dim Inches (mm)		Plt.	Ins.	Construction Notes		Amphenol Number	Fig.
	a	d						
Blunt Post/.158(4.0) Long	.995(25.3)	.330(8.4)	P9	D1	Captive Contact/.330(8.4) Exposed TFE	Gold Plated Body	901-9214-CC	1
Blunt Post/.158(4.0) Long	.995(25.3)	.330(8.4)	P12	D1	Captive Contact/.330(8.4) Exposed TFE	Passivated Body	901-9214-CCSF	1
Blunt Post/.115(2.9) Long	1.21(30.8)	.590(15.0)	P13	D1	Captive Contact/.590(15.0) Exposed TFE	Passivated Body	901-9788	1
Blunt Post/.115(2.9) Long	.622(15.8)	—	P13	D1	Captive Contact/Flush TFE	Passivated Body	901-9767	2
Blunt Post/.115(2.9) Long	.622(15.8)	—	P13	D1	Captive Contact/Flush TFE C'sink Flange Holes	Passivated Body	901-9760	2

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Panel Jack Receptacles – 2-hole Flange

Amphenol®

SMA



SMA PANEL JACK RECEPTACLES – 2-hole trimline flange

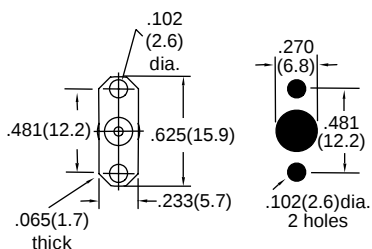
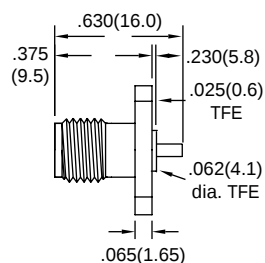
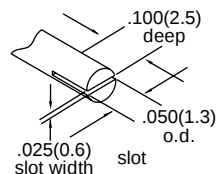
Description	Terminal Type	Plt.	Ins.	Construction Notes		Amphenol Number	Fig.
Panel Jack Receptacle	Solder Cup	P10	D1	Captive Contact/ a= .025" (0.6mm) Exposed TFE	Gold Plated	901-9244-2	1
Panel Jack Receptacle	Blunt Post	P10	D1	Captive Contact/d=.117(3.0) Long Post a= .590" (15.0mm) Exposed TFE	Gold Plated	901-9000-CC	2
		P13	D1		Passivated	901-9000-CCSF	2
Panel Jack Receptacle	Blunt Post	P13	D1	Captive Contact/d=.103(2.6) Long Post a= .334" (8.5mm) Exposed TFE	Passivated	901-9185-CCSF	2

SMA

Panel Jack Receptacles – 2-hole Flange

Amphenol®

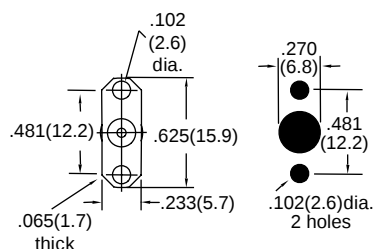
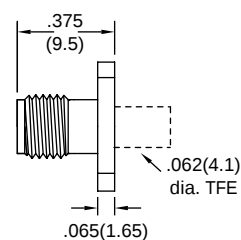
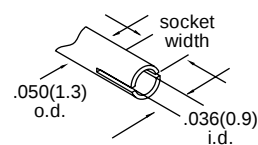
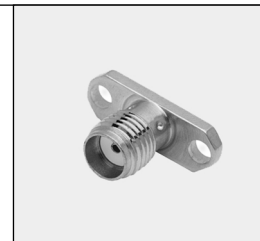
Fig. 1



.223" Wide 2-Hole Trimline Flange

SMA Panel Jack Receptacles
Slot Terminal
901-9244-1 ‡
Gold Plated
901-9244-1SF ‡
Passivated Finish

Fig. 2



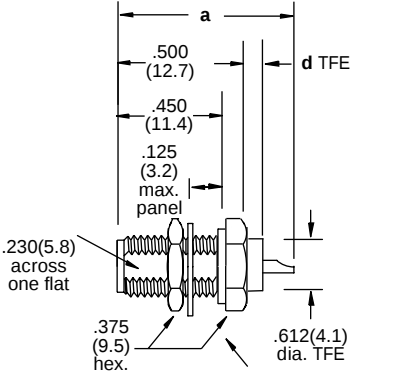
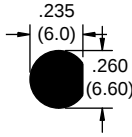
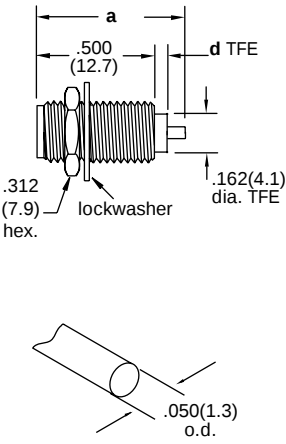
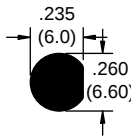
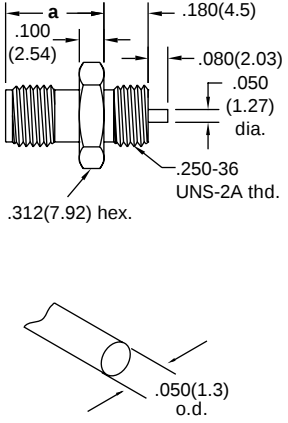
.223" Wide 2-Hole Trimline Flange

SMA Panel Jack Receptacles
Socket Terminal
901-9814
Flush TFE,
Conductive Epoxy Cap
901-9770
.185 Exposed TFE

SMA PANEL RECEPTACLES – 2-hole trimline flange

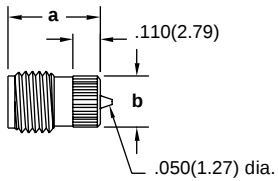
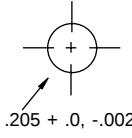
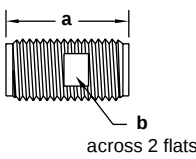
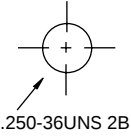
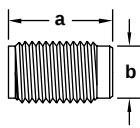
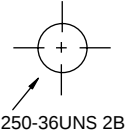
Description	Terminal Type	Plt.	Ins.	Construction Notes		Amphenol Number	Fig.
Panel Jack Receptacle	Slot .025" (0.6mm) wide	P9	D1	Contact Shipped Unassembled/ .025" (0.6 mm) Exposed TFE	Gold Plated	‡ 901-9244-1	1
		P13	D1		Passivated	‡ 901-9244-1SF	1
Panel Jack Receptacle	Socket	P13	D1	Flush TFE	Passivated Body	901-9814	2
Panel Jack Receptacle	Socket	P13	D1	.085 Exposed TFE	Passivated Body	901-9770	2

‡ Contact shipped unassembled. User has option for slot orientation

Fig. 1    SMA Bulkhead Receptacle Rear Mount Solder Cup Terminal Hex Flange 901-9211 Gold Plated, Epoxy Captivated 901-9211-SF Passivated Finish, Epoxy Captivated 901-10032-SF Gold Plated, Mechanically Captivated 901-10032 Passivated Finish, Mechanically Captivated	Fig. 2    SMA Bulkhead Receptacle Front or Rear Mount Blunt Post Terminal 901-9220 Gold Plated 901-9220-SF Passivated Finish 901-9835 Gold Plated/Flush TFE	Fig. 3    SMA Bulkhead Receptacle Front Mount Post Terminal Hex Flange 901-9841 Gold Plated without Nut & Washer
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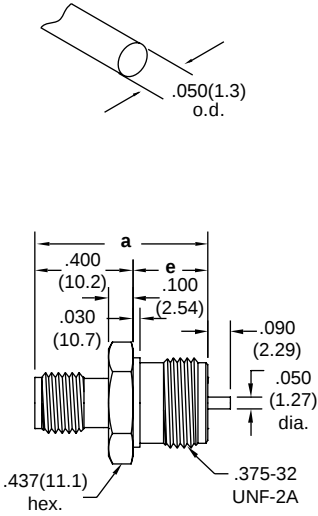
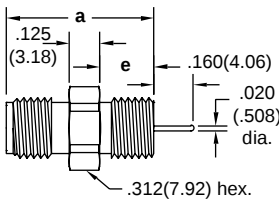
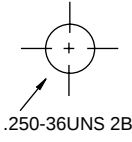
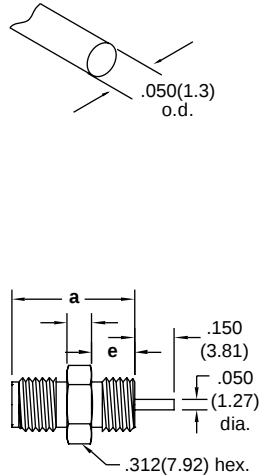
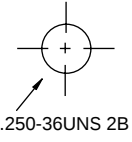
SMA BULKHEAD RECEPTACLES – female contacts

Description	Terminal Type	Plt.	Ins.	Construction Notes		Dim Inches (mm)		Amphenol Number	Fig.
						a	d		
Rear Mount/ Hex Flange	Solder Cup	P10	D1	Captive Contact/ .066(1.7mm) Exposed TFE	Gold Plated	.668(17.0)	.066(1.7)	901-9211	1
	Solder Cup	P13	D1		Passivated	.668(17.0)	.066(1.7)	901-9211-SF	1
Front or Rear Mount	Blunt Post	P10	D1	Captive Contact/ .076(1.9mm) Exposed TFE	Gold Plated	.660(16.7)	.076(1.9)	901-9220	2
	Blunt Post	P13	D1		Passivated	.660(16.7)	.076(1.9)	901-9220-SF	2
	Blunt Post	P11	D1	Captive Contact/Flush TFE	Gold Plated	.625(15.9)	.076(1.9)	901-9835	2
Front Mount	Post	P11	D1	Flush TFE	Gold Plated	.400(10.2)	—	901-9841	3
Rear Mount Hex. Flange	Solder Cup	P10	D1	Mechanically captivated	Gold Plated	.668(17.0)	.066(1.7)	901-10032	1
	Solder Cup	P13	D1	Mechanically captivated	Passivated	.668(17.0)	.066(1.7)	901-10032-SF	1

Fig. 1    SMA Bulkhead Receptacle (Plug) Press-Fit Mount 901-9856	Fig. 2    SMA Bulkhead Receptacle (Jack) 901-9847	Fig. 3    SMA Launcher 901-9023
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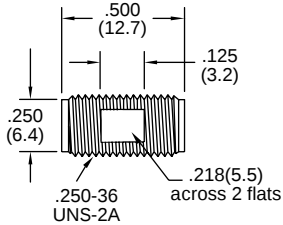
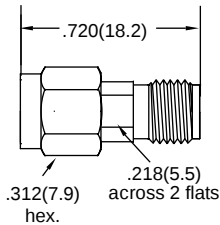
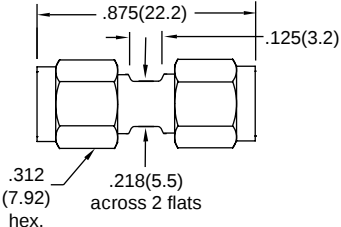
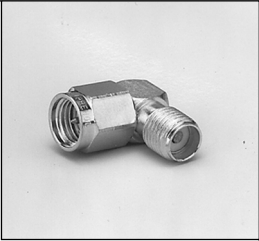
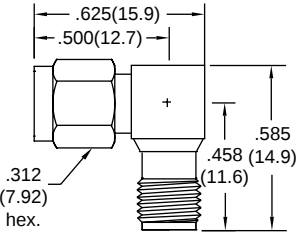
SMA BULKHEAD RECEPTACLES – female contacts

Description	Terminal Type	Plt.	Ins.	Construction Notes		Dim Inches (mm)		Amphenol Number	Fig.
						a	b		
Press-Fit	Tab	P13	D1	Flush TFE	Passivated	.375(9.53)	.206(5.23)	901-9856	1
Front or Rear Mount	Socket	P13	D1	Flush TFE	Passivated	.500(12.7)	.210(5.33)	901-9847	2
	Socket	P13	D1	Flush TFE/ w/o Nut & Washer	Passivated	.425(10.8)	.210(5.33)	901-9023	3

Fig. 1    SMA Mid-Flange Bulkhead Receptacle Front Mount Post Terminal 901-9842	Fig. 2    SMA Mid-Flange Bulkhead Receptacle Front Mount Post Terminal 901-9909	Fig. 3    SMA Mid-Flange Bulkhead Receptacle Front Mount Post Terminal 901-9911
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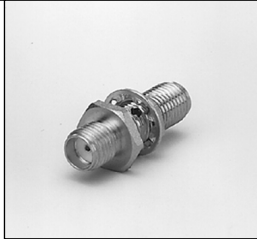
SMA MID-FLANGE BULKHEAD RECEPTACLES – female contacts

Description	Terminal Type	Plt.	Ins.	Construction Notes		Dim Inches (mm)		Amphenol Number	Fig.
						a	e		
Front Mount	Blunt Post	P13	D1	Flush TFE	Passivated	.706(17.9)	.306(7.77)	901-9842	1
Front Mount	Blunt Post	P13	D1	.020 Spherical Radius	Passivated	.600(15.2)	.220(5.89)	901-9909	2
Front Mount	Blunt Post	P12	D1	Gold over Copper Contact	Passivated	.500(12.7)	.188(4.78)	901-9911	3

Fig. 1 DC-18 GHz 1.14 VSWR max.   SMA Straight Adapter, Jack-Jack 901-9217 Gold Plated 901-9217-SF Passivated Finish	Fig. 2 DC-18 GHz 1.14 VSWR max.   SMA Straight Adapter, Plug-Jack 901-9216 Gold Plated 901-9216-SF Passivated Finish
Fig. 3 DC-18 GHz 1.14 VSWR max.   SMA Straight Adapter, Plug-Plug 901-9218 Gold Plated 901-9218-SF Passivated Finish	Fig. 4 DC-18 GHz 1.23 VSWR max.   SMA Angle Adapter, Plug-Jack 901-125-11 Gold Plated 901-125-11SF (M55339/02-30001) Passivated

SMA IN-SERIES ADAPTERS

Description	Plt.	Ins	Notes		Mil. No. M55339/	Amphenol Number	Fig.
Straight Jack-Jack	P9	D1	DC-18GHz Max. VSWR 1.14 Captive Contact	Gold Plated	—	901-9217	1
	P12			Passivated	—	901-9217-SF	
Straight Plug-Jack	P9	D1	DC-18GHz Max. VSWR 1.14 Captive Contact	Gold Plated	—	901-9216	2
	P12			Passivated	—	901-9216-SF	
Straight Plug-Plug	P10	D1	DC-18GHz Max. VSWR 1.14 Captive Contact	Gold Plated	—	901-9218	3
	P12			Passivated	—	901-9218-SF	
Angle Plug-Jack	P13	D1	DC-18GHz Max. VSWR 1.23 Captive Contact	Gold Plated	—	901-125-11	4
	P13			Passivated	02-30001	901-125-11SF	

Fig. 1  SMA Tee Adapter Jack-Jack-Jack 901-178 Gold Plated	Fig. 2  SMA Tee Adapter Plug-Jack-Jack 901-382-1 Gold Plated	Fig. 3  SMA Bulkhead Adapter Jack-Jack 901-9209-A Gold Plated 901-9209-ASF Passivated Finish
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SMA IN-SERIES TEE ADAPTERS

Description	Dimensions, Inches (millimeters)			Plt.	Ins	Notes	Amphenol Number	Fig.
	a	d	e					
Tee Adapter, Jack-Jack-Jack	1.00(25.4)	.687(17.5)	.500(12.7)	P9	D1	BeCu Body	901-178	1
Tee Adapter, Plug-Jack-Jack	1.08(27.4)	.687(17.5)	.500(12.7)	P9	D1	BeCu Body	901-382-1	2

SMA IN-SERIES BULKHEAD ADAPTERS

Description	Plt.	Ins	Notes	Amphenol Number	Fig.
Bulkhead Jack-Jack Front or Rear Mount	P11	D1	DC-18GHz Max. VSWR 1.14 Captive Contact	901-9209-A	3
	P13			901-9209-ASF	

Amphenol has available a line of 50 ohm SMA brass connectors as a cost effective solution for applications where stainless steel construction is not required. This gives the design engineer flexibility with performance to complete projects with world class components.

Amphenol series 901 SMA brass connectors are semi-precision, subminiature units which provide electrical performance from DC to 18 GHz. These high performance connectors are compact in size and mechanically have outstanding durability.

Features/Benefits

- Amphenol brass SMA connectors feature pre-assembled captive center contacts, brass body and coupling nuts.
- Connectors are built in accordance with MIL-C-39012.
- Can be mated with all connectors which meet the military specification mating diameters regardless of manufacturer.
- Available for .085" and .141" diameter semi-rigid cables and all the standard flexible cables including double shielded RG-316.
- Connectors are adaptable to the interconnection requirements of both systems and components.

SPECIFICATIONS*

ELECTRICAL

Impedance	50 ohms
Frequency range	.141" & .085" O.D. copper jacket semi-rigid cable. 0-18GHz. Flexible cables: 0-12.4 GHz.
Voltage rating	RG-58,141,142: 500 volts peak RG-174, 188, 316: 375 volts peak
Dielectric withstanding voltage	.141" & RG-58 group: 1,000 VRMS. .085" & RG-316 group: 750 VRMS.
VSWR (straight connectors)	.141" O.D. semi-rigid cable: 1.05 + .005 f RG-174 group: 1.15 + .02 f RG-58 group: 1.15 + .01 f RG-178 group: 1.20 + .025 f
Contact resistance	Center: 2.0 milliohms Body: 2.0 milliohms Braid to body: 0.5 milliohms
Insulation resistance:	5000 megohms
RF leakage	-90 dB min. at 2.3 GHz
Insertion loss:	dB max. = $.06 \sqrt{f(\text{GHz})}$ Test frequency @ 6.0 GHz

MATERIAL

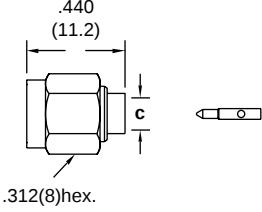
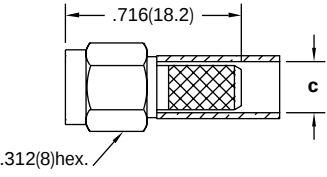
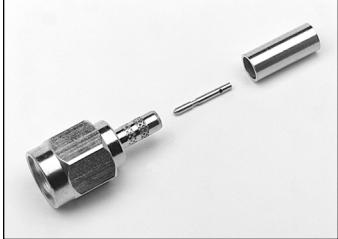
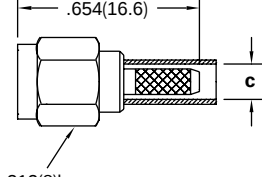
Bodies, coupling nuts, other metal parts (except as noted)	Brass per QQ-B-626
Contacts	
Male:	Brass
Female:	Beryllium copper, heat treated
Plating: Center contacts,	.000030" min. gold
Plating: Other metal parts	Standard .000010" gold or nickel plated
Insulators	TFE fluorocarbon
Gaskets	Silicone rubber
Crimp ferrules	Seamless copper tubing alloy

MECHANICAL†

Mating	.250-36 Threaded coupling
Mating Torque	Minimum: 2 inch pounds 12 N.cm Recommended: 8 to 10 inch pounds 45 N.cm Maximum: 15 inch pounds 60 N.cm
Connector Durability	100 matings

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

† Pressure applied on an SMA outer contact is extremely high; therefore inadequate torque of connector body will result in a slight deformation of the outer contact. Reflections will appear above 2GHz.

Fig. 1   SMA Solder Plug 901-9868-RFX▲ Gold Plated for .141" S/R 901-9867-RFX▲ Gold Plated for .085" S/R	Fig. 2   SMA Crimp Plug Captivated Center Contact 901-9870▲ Gold Plated for RG-58 901-9871▲ Gold Plated for RG-223, 141 901-9876-RFX▲ Nickel Plated for RG-58 901-10009-RFX Gold Plated for LMR 240 901-10010-RFX Gold Plated for LMR 200	Fig. 3   SMA Crimp Plug Captivated Center Contact 901-9877-RFX▲ Nickel Plated for RG-174, 188, 316 901-9916 Gold Plated for RG-174, 188, 316 901-10024-RFX Nickel Plated for RD-174, 188, 316 901-10025-RFX Gold Plated for RD-174, 188, 316
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SMA BRASS PLUGS

Cable RG-/U	Connector Description	Cable Attachment		c Dia In. (mm)	CAI	Ins.	Notes	Amphenol Number	Fig.
		Outer	Inner						
58	Plug	Crimp	Solder	.210(5.3)	C53	D1	Captive Contact	▲ 901-9870	2
58	Plug	Crimp	Solder	.210(5.3)	C53	D1	Captive Contact	▲ 901-9876-RFX	2
174, 188, 316	Plug	Crimp	Solder	.128(3.3)	C57	D1	Captive Contact	▲ 901-9877-RFX	3
RD 174, 188, 316	Plug	Crimp	Solder	.128(3.3)	C57	D1	Captive Contact	901-9916	3
RD 174, 188, 316	Plug	Crimp	Solder	.128(3.3)	C57	D1	Captive Contact	901-10024-RFX	3
174, 188, 316	Plug	Crimp	Solder	.128(3.3)	C57	D1	Captive Contact	901-10025-RFX	3
141, 223	Plug	Crimp	Solder	.220(5.6)	C53	D1	Captive Contact	▲ 901-9871	2
.085" S/R	Plug	Solder	Solder	.090(2.3)	C47	D1	—	▲ 901-9867-RFX	1
.141" S/R	Plug	Solder	Solder	.145(3.7)	C47	D1	—	▲ 901-9868-RFX	1
LMR 240	Plug	Crimp	Solder	.261(6.6)	C53	D1	Captive Contact	901-10009-RFX	2
LMR 200	Plug	Crimp	Solder	.206(5.2)	C53	D1	Captive Contact	901-10010-RFX	2

▲ distributor stocked



Technical drawing of a 1/2-13 UNF-2B hex. cap screw. The drawing shows the screw with dimensions in inches (and millimeters in parentheses):

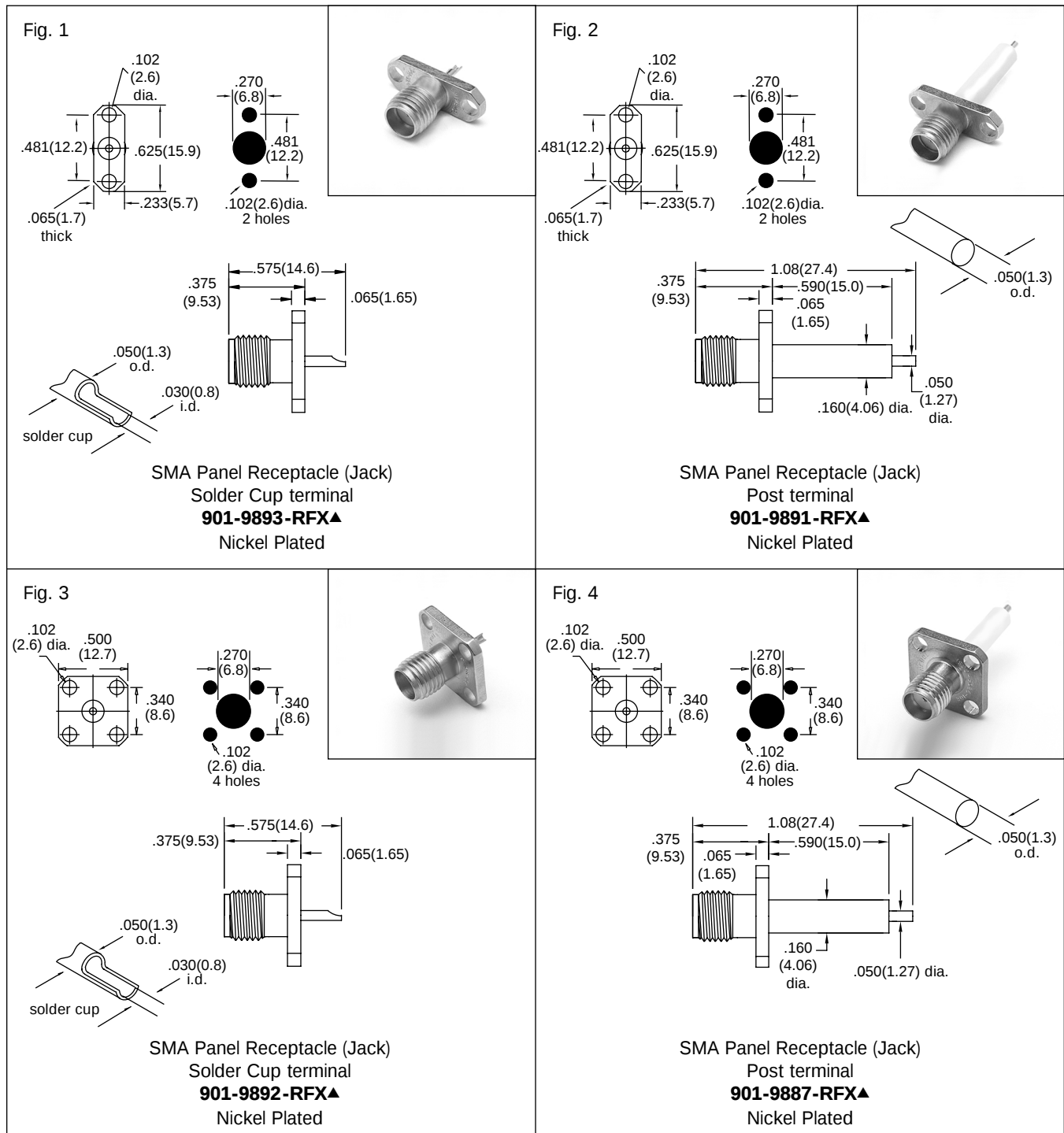
- Head diameter: .610 (15.5)
- Head length: .400 (10.2)
- Head shape: .312 (8) hex.
- Thread length: .638 (16.2)
- Thread diameter: .126 (3.2) dia.
- Thread pitch: .220 (5.9) dia.



Technical drawing of a hex bolt and nut assembly. The bolt has a length of .780(19.8) and a hex head diameter of .312(8). The nut has a height of .276(7.0) and a hex head diameter of .312(8). The assembly is shown with a max. panel thickness of .125(3.2). The bolt is shown with a hex head and a threaded section. The nut is shown with a hex head and a threaded section. The dimensions are given in inches and millimeters.



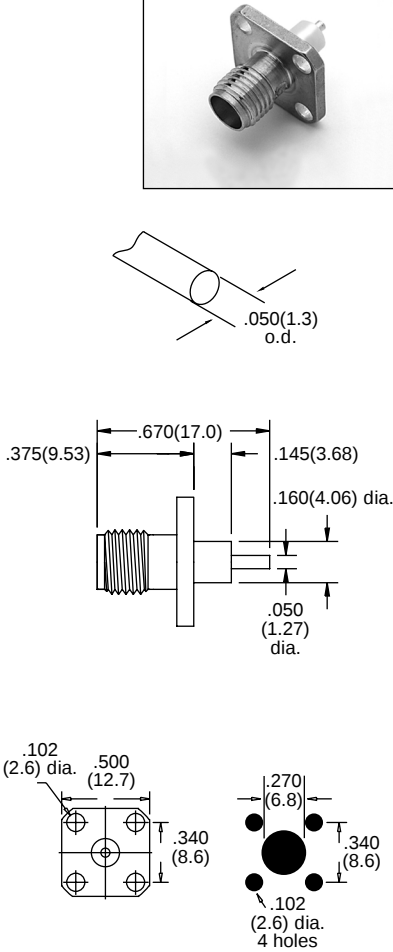
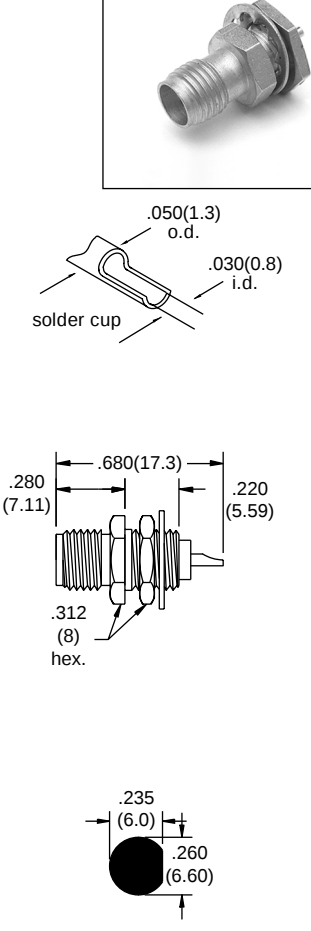
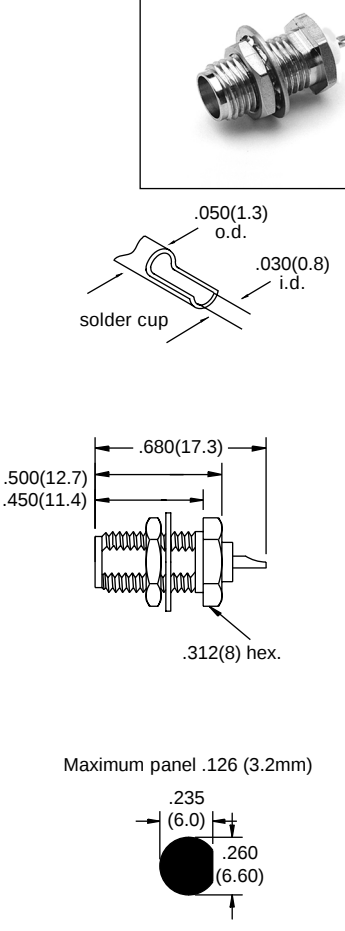
www.amphenolrf.com



SMA BRASS PANEL JACK RECEPTACLES

Connector Description	Terminal Type	Ins	Construction Notes	Amphenol Number	Fig.
Panel Receptacle (Jack)	Solder Cup	D1	Nickel Plated Body	▲ 901-9893-RFX	1
Panel Receptacle (Jack)	Post	D1	Nickel Plated Body	▲ 901-9891-RFX	2
Panel Receptacle (Jack)	Solder Cup	D1	Nickel Plated Body	▲ 901-9892-RFX	3
Panel Receptacle (Jack)	Post	D1	Nickel Plated Body	▲ 901-9887-RFX	4

▲ distributor stocked

Fig. 1  SMA Panel Receptacle (Jack) Post terminal 901-9888 Gold Plated	Fig. 2  SMA Bulkhead Receptacle (Jack) Solder Cup terminal 901-9889-RFX▲ Nickel Plated Front Mount	Fig. 3  SMA Bulkhead Receptacle (Jack) Solder Cup terminal 901-9890-RFX▲ Nickel Plated Rear Mount
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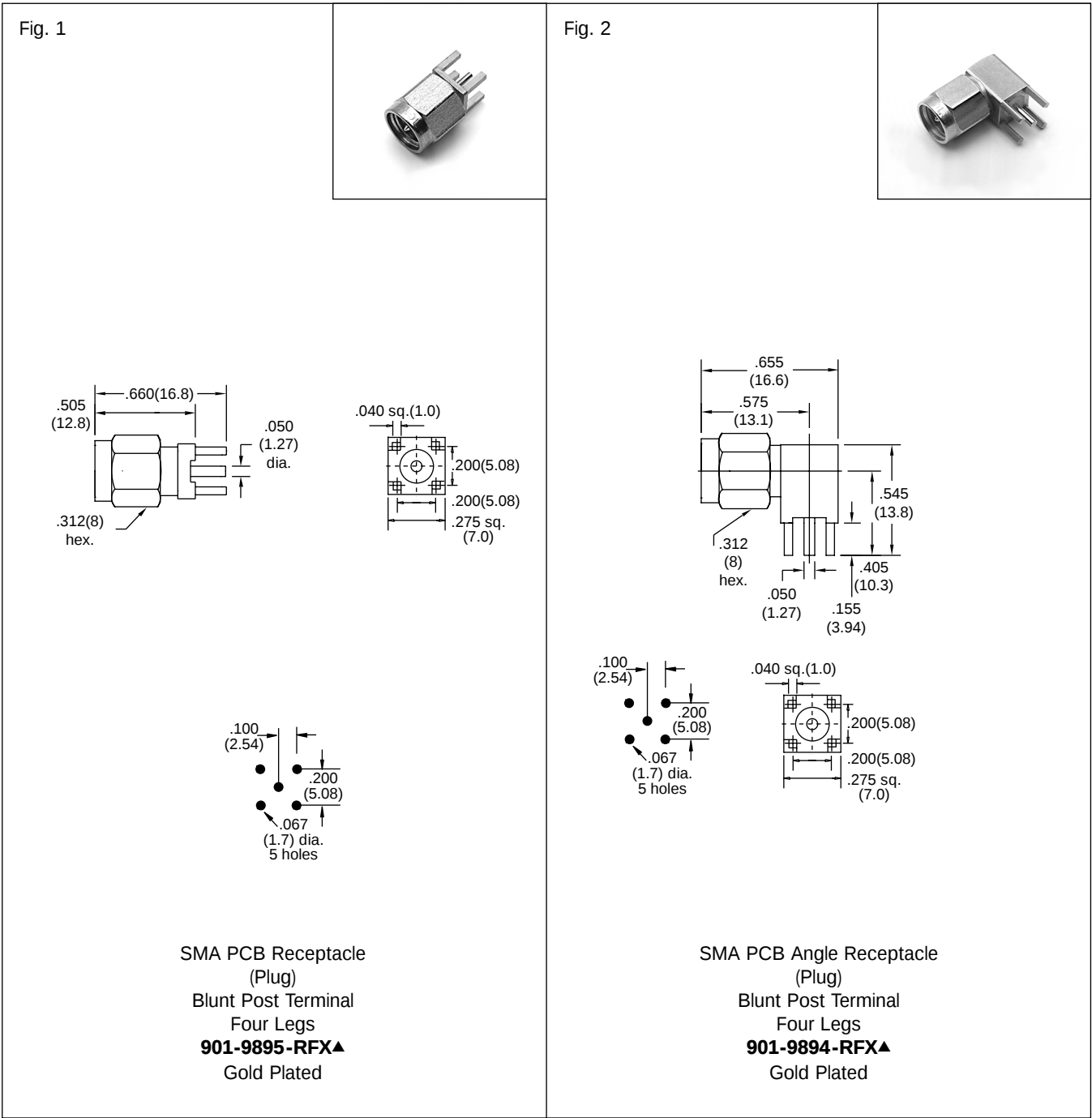
SMA BRASS PANEL JACK RECEPTACLES

Connector Description	Terminal Type	Ins	Construction Notes	Amphenol Number	Fig.
Panel Receptacle (Jack)	Post	D1	Gold Plated Body	901-9888	1

SMA BRASS BULKHEAD RECEPTACLES

Connector Description	Terminal Type	Ins	Construction Notes	Amphenol Number	Fig.
Bulkhead Receptacle (Jack), Front Mount	Solder Cup	D1	Nickel Plated Body	▲ 901-9889-RFX	2
Bulkhead Receptacle (Jack), Rear Mount	Solder Cup	D1	Nickel Plated Body	▲ 901-9890-RFX	3

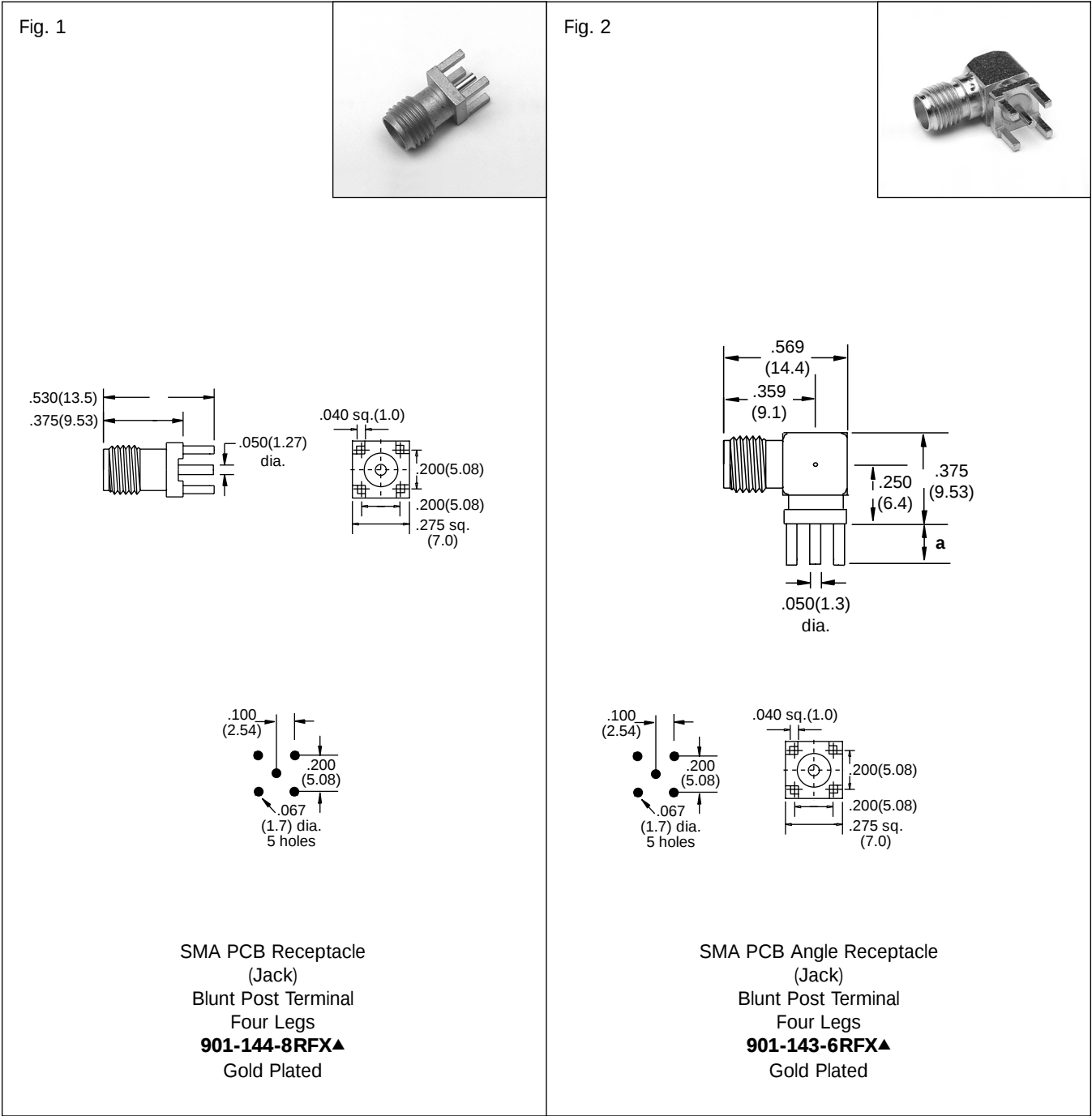
▲ distributor stocked



SMA BRASS PRINTED CIRCUIT BOARD PLUG RECEPTACLES

Connector Description	Terminal Type	Ins	Construction Notes	Amphenol Number	Fig.
PCB Receptacle (P)/ Four Legs	Blunt Post	D1	Gold Plated Body	▲ 901-9895-RFX	1
PCB Angle Receptacle (P)/ Four Legs	Blunt Post	D1	Gold Plated Body	▲ 901-9894-RFX	2

▲ distributor stocked



SMA BRASS PRINTED CIRCUIT BOARD JACK RECEPTACLES

Connector Description	Terminal Type	Ins	Construction Notes	Amphenol Number	Fig.
PCB Receptacle (J)/ Four Legs	Blunt Post	D1	Gold Plated Body	▲ 901-144-8RFX	1
PCB Angle Receptacle (J)/ Four Legs	Blunt Post	D1	Gold Plated Body	▲ 901-143-6RFX	2

▲ distributor stocked

For phase array radar, test equipment, ILS landing systems and other instrumentation using phase matching techniques, these SMA connectors for semi-rigid coaxial cables and the SMA plug-to-Jack adapter offer a precise and simple means of phase adjustment for microwave devices.

Features/Benefits

- Connectors incorporate a threaded interconnection of variable length.
 - Adjustment nut creates incremental changes in connector length and angle.
 - Proper phase setting for each cable is maintained by connector locking-nuts.
- (For example, one revolution of the adjustment nut results in a phase angle change of 5.7° for a 9 GHz signal $[0.636 \times 9]^\circ$.)*
- Connectors provide ease of mechanical screw adjustments, compared to the delays and expense of laborious cable-trimming.
 - Allow phase matching to be performed at the final production stages.

SPECIFICATIONS*

ELECTRICAL

Impedance	50 ohms
Frequency range	DC-18GHz.
Insertion loss:	dB max. For Adapter 901-508 = $.1 \sqrt{f(\text{GHz})}$ For Plug 901-509 = $.08 \sqrt{f(\text{GHz})}$
VSWR	See chart below
Phase Angle Adjustment Range in degrees	For Adapter 901-508 and Plug 901-509, = 0° to $[10 \times f(\text{GHz})]^\circ$ max
Phase Angle change per revolution of Adjustment Nut in degrees	For Adapter 901-508 and Plug 901-509, = $[0.636 \times f(\text{GHz})]^\circ$
Voltage rating	500 VRMS peak

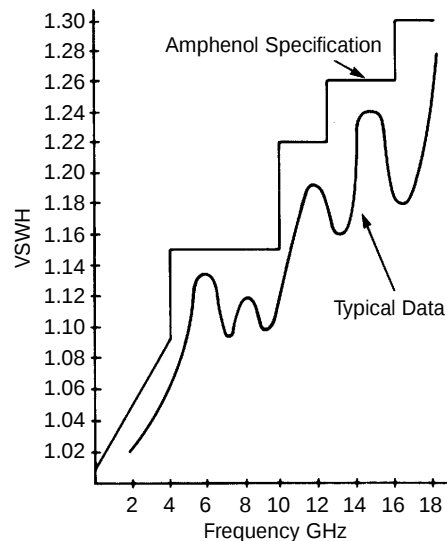
MECHANICAL

Mating	Mating face dimensions compatible with the mating requirements of MIL-C-39012/55 (Type SMA)
Connector Durability	(SMA interface) 500 cycles of mating and unmating without deterioration

MATERIAL

Center Contact	Beryllium copper, Gold plated
Connector Body	Brass or Beryllium Copper, Gold plated
Adjusting Nuts and Locking Nuts	Brass with ASTRO plate finish
Connector Coupling Nut	Stainless Steel, Passivated
Insulation	TFE

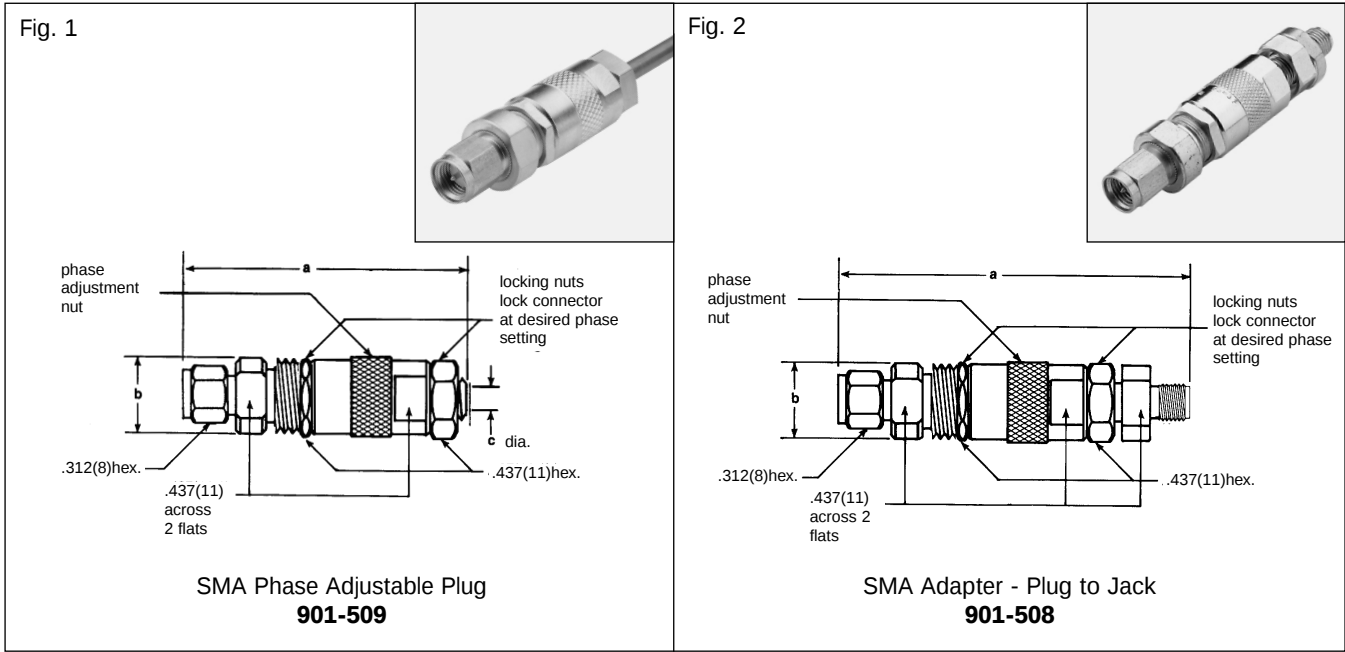
SWEPT VSWR DATA



ENVIRONMENTAL

Shock	MIL-Std. 202 method 213 (test cond. I)
Vibration	MIL-Std. 202 method 204 (test cond. D)
Corrosion	MIL-Std. 202 method 101 (test cond. B)
Temperature range	-65°C to + 125°C

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



Description	Semi-Rigid Cable Size	Cable Termination	Dimensions, Inches (millimeters)				CAI	Pit.	Ins.	Amphenol Number	Fig.
			a		b	c					
			(Fully Extended)	(Fully Closed)							
Plug	.141"(3.6) dia.	Solder	2.03(51.6)	1.68(42.7)	.500(12.7)	.144(3.7)	C51	PCF	D1	901-509	1
Adapter	—	—	2.50(63.5)	2.15(54.6)	.500(12.7)	—	—	PCF	D1	901-508	2

Mouser Electronics

Authorized Distributor

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Amphenol:

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