

Description

Reverse Polarity is a keying system accomplished with a reversed interface. This ensures, for example, a Reverse Polarity SMA does not mate with a Standard SMA.

Amphenol's RP Plugs have a female contact; Jacks have a male contact. Some competitors prefer to use reverse threading to accomplish their RP keying.

Available for RG-316, RD-316, RG-142, RG-178, Belden 9913, and RG-58 cable.

Features/Benefits

- May be used in applications where keying is necessary to eliminate mis-matching from mating with a standard connector.
- MIL Standard 348 interface ensures high quality and premium performance.
- Crimp-crimp termination allows easy and quick assembly.
- Fits a variety of cables and configurations allowing the customer to choose the right connector for the application.

Applications

- Antennas
- Cable Assembly
- GPS
- Spread Spectrum Wireless
- WLAN



RP-SMA Connectors

Specifications	150
Connectors	151-152

RP-BNC & RP-TNC

Specifications	154
TNC Connectors	155-156
BNC Connectors	157

ELECTRICAL

Impedance	50 ohms
Frequency range	Semi-rigid 0-18 GHz.
	Flexible cables 0-12.4 GHz
Voltage rating	375 volts peak
Dielectric withstanding voltage	1,000 volts rms.
VSWR straight connectors	On .141" S/R: 1.05 + .005 f (GHz) On RG-174: 1.20 + .025 f (GHz)
Insertion loss	.03 $\sqrt{f}$ (GHz) dB max.
Insulation resistance	5,000 megohms
RF leakage	-60 dB min.

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

MECHANICAL

Mating	.250-36 threaded coupling
Cable affixment	Crimp or solder types
Center conductor	Solder
Cable retention	60 to 80 lbs. depending on cable

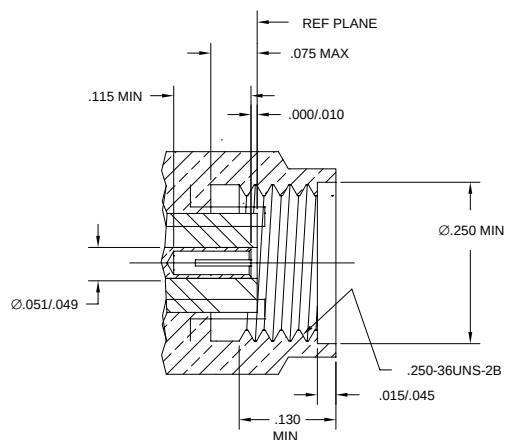
MATERIAL

Center contacts	Beryllium copper, gold plated
Crimp ferrule	Copper tubing
Other metal parts	Non-magnetic passivated stainless steel or brass, gold or silver plated.
Insulators	TFE
Gaskets	Silicone rubber

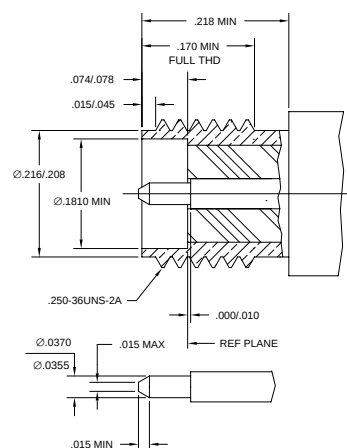
ENVIRONMENTAL

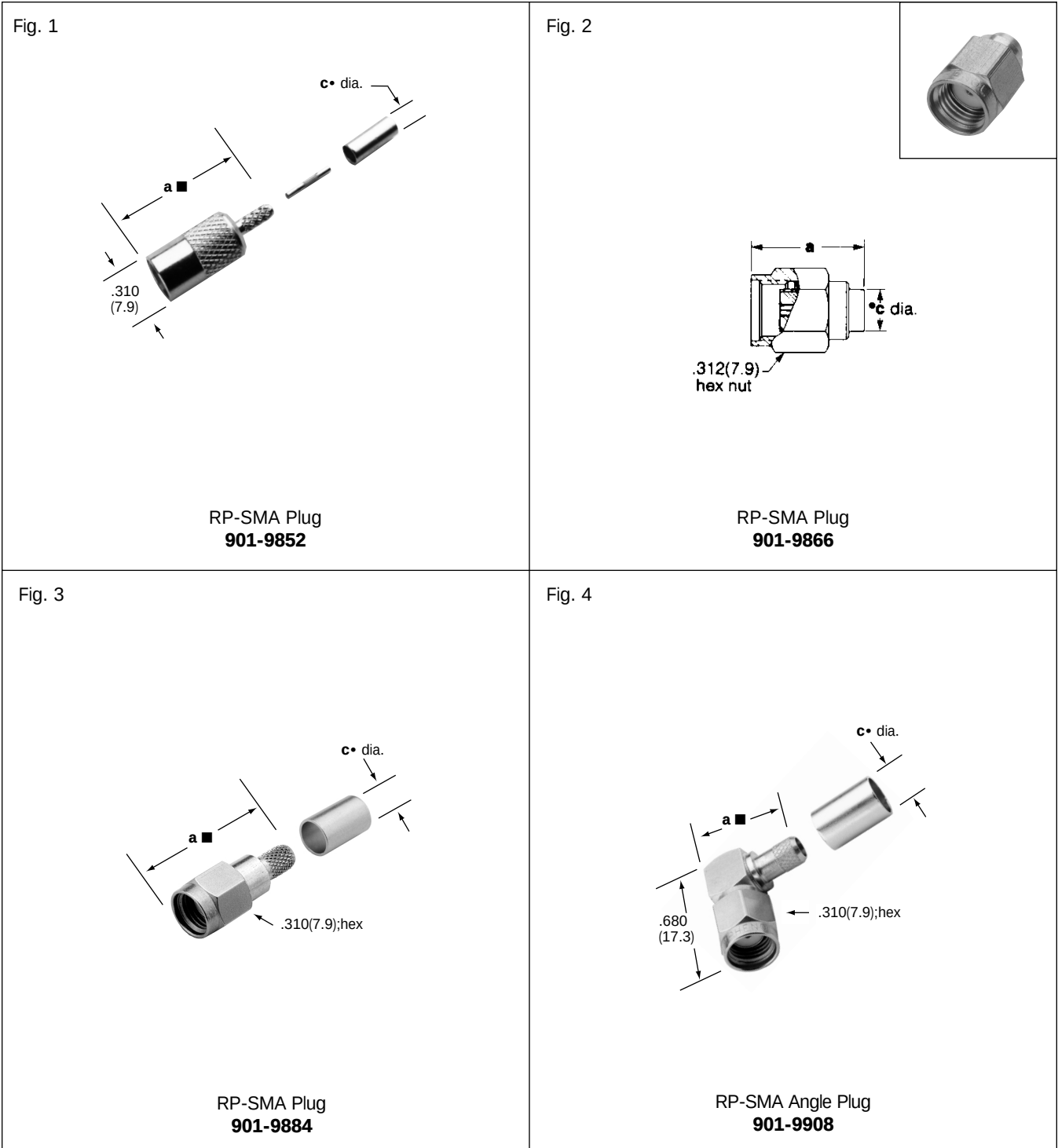
Temperature range	-65°C to + 165°C
Moisture Resistant	MIL-STD 202 method 106 (test condition B)
Corrosion	MIL-STD-202 method 101 (test cond. B)
Vibration	MIL-STD-202 method 204 (test cond. B)

PLUG



JACK





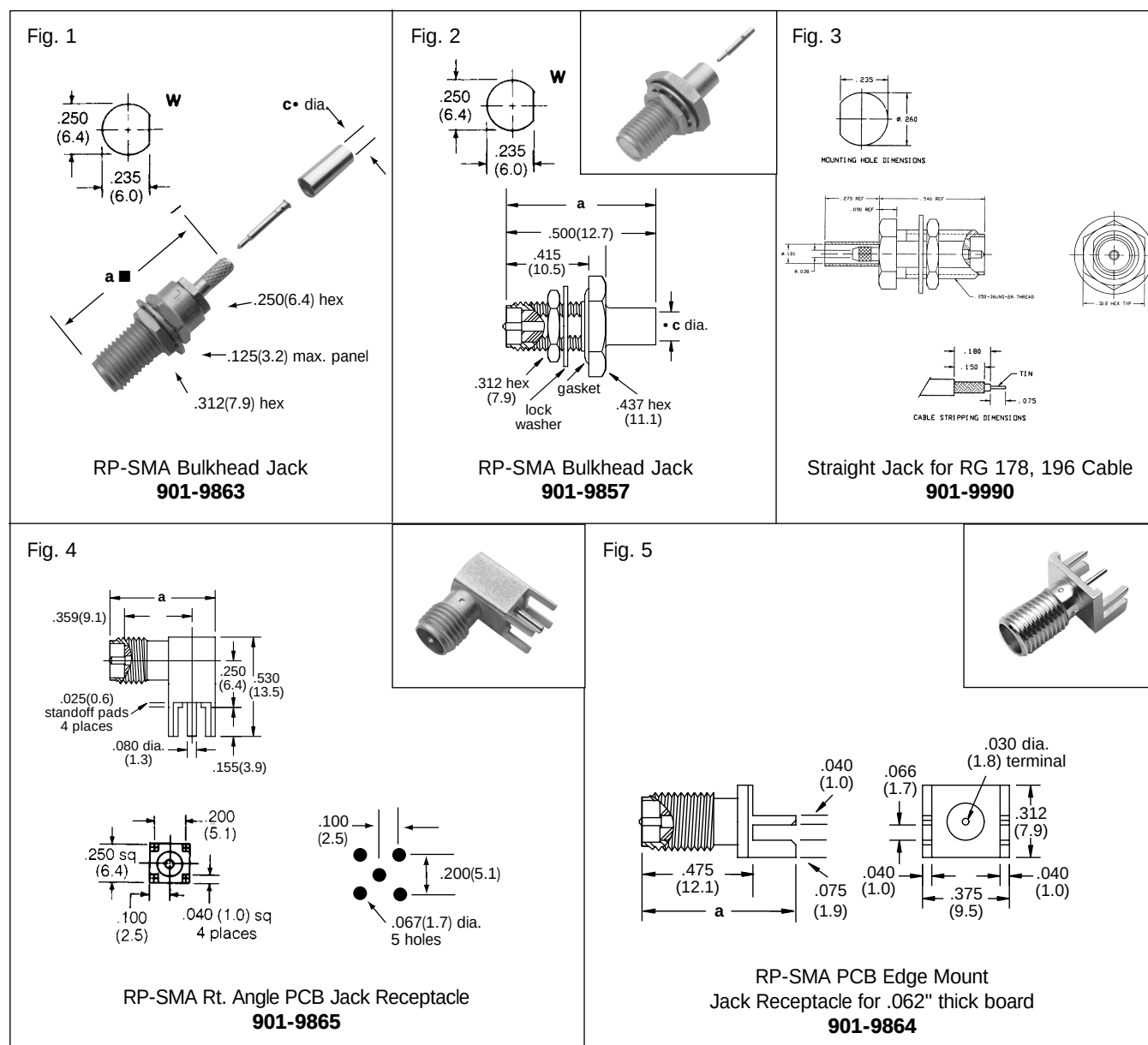
RP-SMA PLUGS, BULKHEAD JACKS & PCB RECEPTACLES

Cable RG-/U	Conn. Type	Cable Attachment		Dimensions, in.(mm)		CAI	Plt.	Ins.	MTG. Hole	Construction Notes	Amphenol Number	Fig.
		Outer	Inner	a	c •							
55, 142, 223, 400	RP-SMA Plug	Crimp	Solder	.785(19.9)	.206(5.2)	C58	P12	D1	—	—	901-9884	3
174	RP-SMA Plug	Crimp	Solder	.940(23.9)	.128(3.2)	C58	P13	D1	—	Nickel Plated Body	901-9852	1
223	RP-SMA Ang Plug	Crimp	Solder	.560(14.2)	.220(5.6)	C58	P12	D1	—	—	901-9908	4
.141" S/R	RP-SMA Plug	Solder	Press-Fit	.480(12.2)	.145(3.7)	C59	P29	D1	—	Pre-Installed Contact	901-9866	2

■ includes outer ferrule • inside diameter

Reverse Polarity RP-SMA Jacks and Receptacles

Amphenol®



RP-SMA BULKHEAD JACKS

Cable RG-/U	Conn. Type	Cable Attachment		Dimensions, in.(mm)		CAI	Plt.	Ins.	Construction Notes	Amphenol Number	Fig.
		Outer	Inner	a	c •						
174	RP-SMA Bulkhead Jack	Crimp	Solder	1.50(38.1)	.128(3.2)	C58	P11	D1	—	901-9863	1
.141"S/R	RP-SMA Bulkhead Jack	Solder	Solder	.750(19.0)	.145(3.7)	C59	P11	D1	Gasketed	901-9857	2
178	RP-SMA Bulkhead Jack	Crimp	Solder	.815(20.7)	.101(2.6)	C58	P12	D1	—	901-9990	3

RP-SMA PCB RECEPTACLES

Description	Dimensions, in.(mm)		CAI	Plt.	Ins.	Construction Notes	Amphenol Number	Fig.
	a	c •						
RP-SMA Rt. Angle PCB Receptacle (J), Post Terminal	.569(14.4)	—	—	P11	D1	—	901-9865	4
RP-SMA End Mount PCB Receptacle (J), Post Terminal	.662(16.8)	—	—	P11	D1	For .062" Thick Board	901-9864	5

■ includes outer ferrule