

Reverse Polarity (RP) Series

Description

Reverse polarity BNC, TNC, N & SMA connectors (RP-BNC, RP-TNC, RP-SMA) are designed for uses in wireless applications where a non-standard interface has been mandated by the FCC.

Applications

- Spread Spectrum Wireless Devices

Features

- These connectors may also be used in applications where keying is a necessity. The RP BNCs, RP TNCs & RP SMAs meet the same high quality requirements as standard Amphenol BNCs, TNCs & SMAs. They provide excellent performance DC to 4 GHz for RP BNCs, DC to 4 GHz for RP TNCs and DC 18 GHz for RP-SMAs.

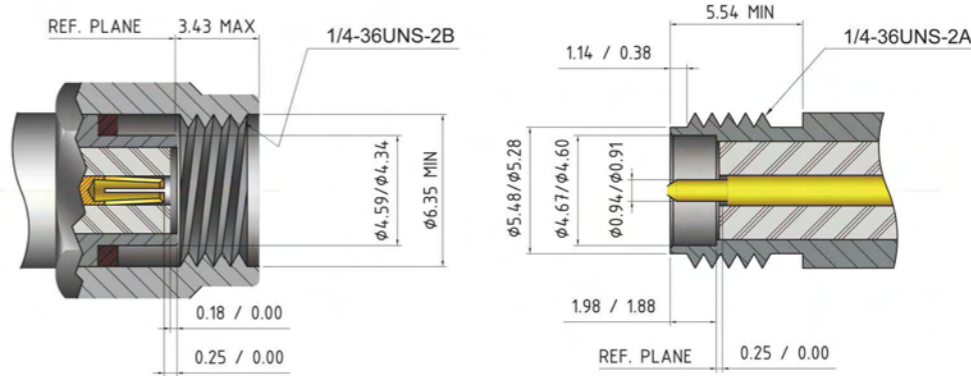
Specification

REVERSE POLARITY CONNECTORS(SMA, BNC, TNC)

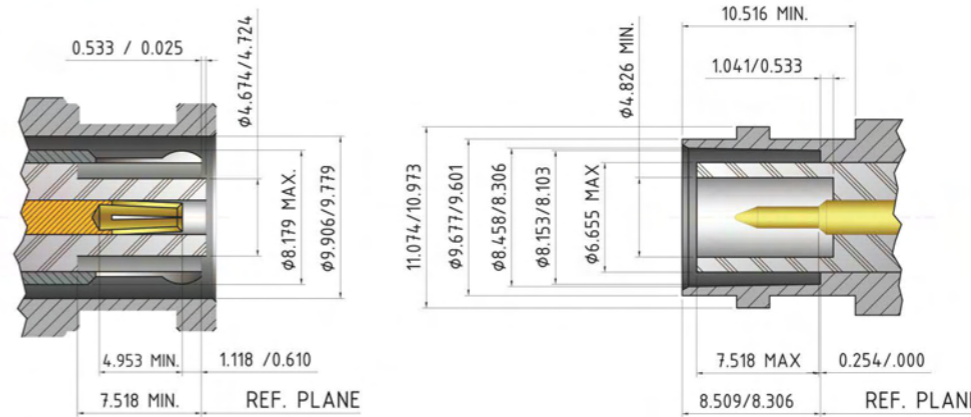
Reverse Polarity non-standard interface connectors are designed for spread spectrum wireless applications where Part 15. 203 of U.S. FCC regulations are applicable. The reverse polarity design prevents damage and will not mate with standard interface devices if accidentally connected. SMA, BNC and TNC devices are readily available. Standard cable affixment sizes are available with special or custom design inquiries accepted.

Interface Mating Dimensions

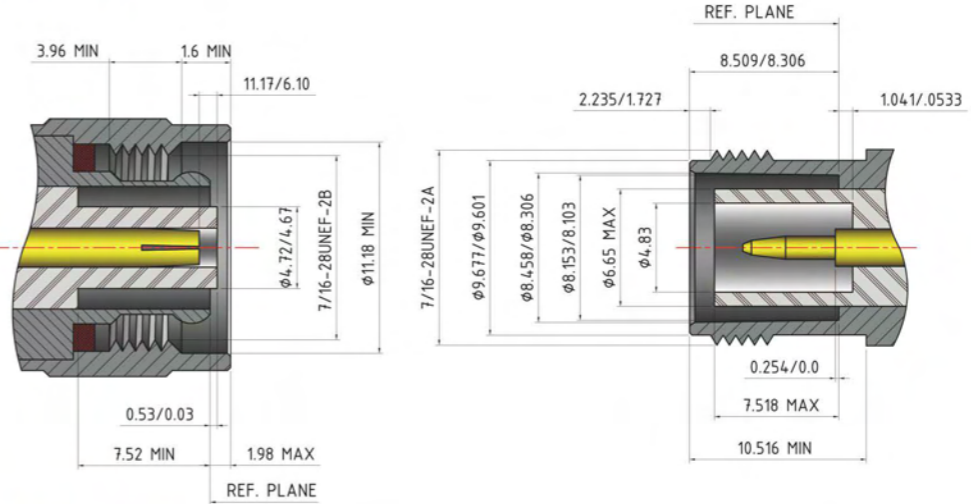
Reverse Polarity SMA



Reverse Polarity BNC



Reverse Polarity TNC



Notes: Unit of "Inch"



RP

RP



Reverse Polarity SMA

Electrical

Impedance	50Ω
Frequency Range	0 to 18 GHz
VSWR	≅ 1.2 + .03 f (GHz)
RF Leakage	≧ 60 dB
Dielectric Withstanding Voltage	1000 V rms
Voltage Rating	≧ 500 V rms (depending on cable)
Center Contact Resistance	≧ 3 mΩ
Outer Contact Resistance	≧ 2.5 mΩ
Insulation Resistance	≧ 5 GΩ

Mechanical

Mating	1/4-36 UNS Screw-on Coupling
Connector Durability	≧ 500 Cycles (for beryllium copper female contact only)
Recommended Mating Torque	7.1 lbs ~ 9.7 lbs
Coupling Nut Retention Force	≧ 60.7 lbs
Cable Retention Force	≧ 7.3 lbs (for RG178) ≧ 12.1 lbs (for RG316) ≧ 28.7 lbs (for RG58)

Environmental

Temperature Range	-65° C to 165° C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
Vibration	MIL-STD-202, Method 204, Cond. D
Thermal Shock	MIL-STD-202, Method 107, Cond. B
Mechanical Shock	MIL-STD-202, Method 213, Cond. I



Reverse Polarity BNC, TNC

Electrical

Impedance	50Ω / 75Ω	
Frequency Range	0 to 4 GHz / 0 to 1 GHz	
VSWR	≧ 1.3 (straight connector) ≧ 1.35 (right angle connector)	
RF Leakage	BNC: ≧ 55 dB	TNC: ≧ 60 dB
Dielectric Withstanding Voltage	1500 V rms	
Voltage Rating	≧ 500 V rms (depending on cable)	
Center Contact Resistance	≧ 1.5 mΩ	
Outer Contact Resistance	≧ 1 mΩ	
Insulation Resistance	≧ 5 GΩ	

Mechanical

Mating	BNC: Bayonet Coupling	TNC: 7/16-28 UNEF Screw-on Coupling
Connector Durability	≧ 500 Cycles (for beryllium copper female contact only)	
Recommended Mating Torque	BNC: 0.6 lbs ~ 2.5 lbs	TNC: 4.1 lbs ~ 6.1 lbs
Coupling Nut Retention Force	≧ 101.2 lbs	
Cable Retention Force	≧ 12.1 lbs (for RG316) ≧ 28.7 lbs (for RG58) ≧ 38.3 lbs (for RG59)	

Environmental

Temperature Range	-65° C to 165° C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
Vibration	MIL-STD-202, Method 204, Cond. B
Thermal Shock	MIL-STD-202, Method 107, Cond. B
Mechanical Shock	MIL-STD-202, Method 213, Cond. G

Material

Parts Name	Material	Plating
Body	Stainless steel Brass	Passivated or Gold Nickel or Gold
Center Contact	Male: Brass Female: Beryllium Copper Phosphor Bronze	Gold
Insulator	PTFE	None
Gasket	Silicone Rubber	None
Crimp Ferrule	Annealed Copper	Same as Body

Note: Other Material/Finish is Available on Request.