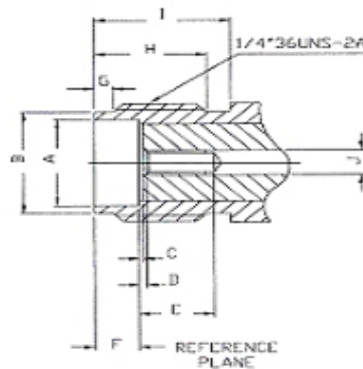
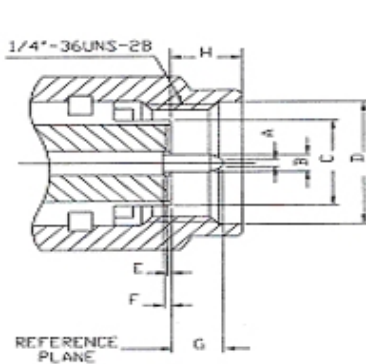




SMA connectors are semi-precision, subminiature devices that provide repeatable electrical performance from DC to 12.4 GHz with flexible cable. These devices offer broadband performance with low reflection and constant 50 ohm impedance. These properties, along with minimum attenuation and low VSWR have made the SMA extremely popular in the microwave community. The SMA design has been broadened to accommodate many interconnect requirements and is available in pressure crimp, clamp and solder terminal attachments. SMA design parameters have incorporated the considerations of balancing cost, size, weight and performance to yield the best value in your microwave system. Among typical applications are components such as dividers, mixers, amplifiers, trimmers and attenuators.

SMA is available both in Standard and Reverse Polarity. Reverse polarity is a keying system accomplished with a reverse interface, and ensures that reverse polarity interface connectors do not mate with standard interface connectors.

• **Interface Dimensions**



**PLUG**

**SOCKET**

Letter	Millimeters(Inches)	
	Minimum	Maximum
A	0.00(.000)	0.38(.015)
B	0.90(.0355)	0.94(.037)
C	—	4.59(.1808)
D	6.35(.250)	—
E	0.00(.000)	0.18(.007)
F	0.00(.000)	0.25(.010)
G	—	2.54(.100)
H	—	3.43(.135)

Letter	Millimeters(Inches)	
	Minimum	Maximum
A	4.60(.1810)	4.67(.1837)
B	5.28(.208)	5.49(.216)
C	0.00(.000)	0.18(.007)
D	0.00(.000)	0.25(.010)
E	2.92(.115)	—
F	1.88(.074)	1.98(.078)
G	0.38(.015)	1.149(.045)
H	4.32(.170)	—
I	5.54(.218)	—
J	1.24(.049)	1.30(.051)

## Electrical:

Impedance	50 ohm
Frequency Range	0 to 18.0 GHz
VSWR	1.2+0.025 f max (Straight) 1.2+0.03 f max (Right Angle)
Working Voltage	• 500 volts rms max
Dielectric Withstanding Voltage	• 1,000 volts rms max
Contact Resistance	center contact=3.0 Milliohms max outer contact=2.0 Milliohms max
Insertion Loss	0.06 dB max @ 6 GHz
Insulation Resistance	5,000 Megohms min

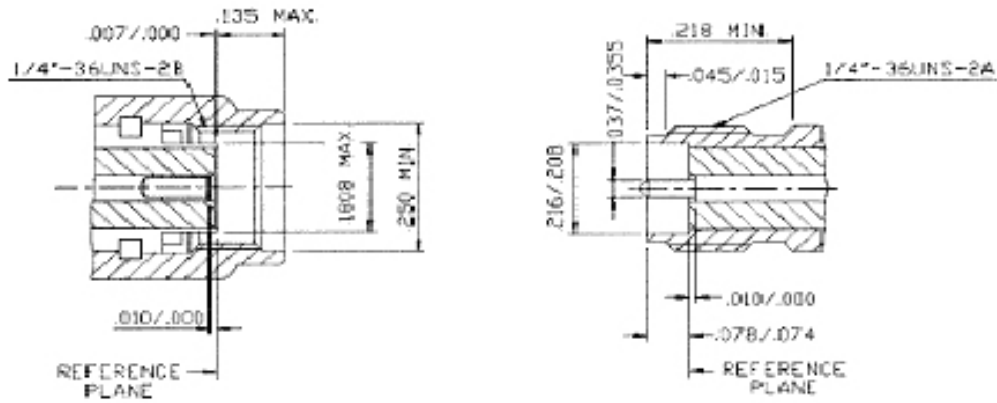
## Mechanical & Environmental:

Mating	Snap-on coupling
Durability	500 matings
Coupling Nut Retention	60 lbs Min
Recommend Nut Mating Torque	7 to 10 inch-pounds
Cable Retention	Hdf200/400 →40 lbs min RG-316 →20 lbs min
Temperature Range	-65°C to 165°C
Vibration	MIL-STD-202 Method 204 Test Cond. D.
Salt Spray	MIL-STD-202 Method 101 Test Cond. B.
Thermal shock	MIL-STD-202 Method 107 Test Cond. B.

## Materials / Finish:

	Material	Plating
Connector Body	Stainless steel Brass	Passivated or gold Nickel or gold
Center Contact	Male: Brass Female: Beryllium Copper	50 μ " gold over 100 μ " nickel 50 μ " gold over 100 μ " nickel
Insulation	Teflon	None
Gasket	Silicone Rubber	None
Crimp Ferule	Annealed Copper	Same as Body

## Reverse Polarity SMA



### Electrical :

Impedance	50 ohm
Frequency Range	0 to 18.0 GHz
VSWR	1.15+0.01 f GHz max (Straight) 1.15+0.02 f GHz max (Right Angle)
Working Voltage	375 volts rms max
Dielectric Withstanding Voltage	100 volts rms
Insertion Loss	0.06 dB maximum @ 6GHz;
Insulation Resistance	5,000 Megohms min

### Mechanical & Environmental:

Mating	1/4"-36 threaded coupling
Durability	500 matings
Coupling Nut Retention	60 lbs Min
Cable Retention	HDF200/400 →41 lbs min; RG316→20lbs min
Thermal shock	-65°C to 165°C

### Materials / Finish:

	Material	Plating
Connector Body	Brass	Nickel or Gold
Center Contact	Male: Brass Female: Beryllium Copper	50 μ " gold over 100 μ " nickel
Insulation	Teflon	None
Gasket	Silicone Rubber	None
Crimp Ferule	Annealed Copper	Same as Body