



## Description

N series coaxial connectors are medium size units which have constant 50 ohm impedance, and provide excellent radio frequency performance up to 11 GHz.

## Applications

- Antenna
- Base Stations
- Microwave Components (Power Splitters & Combines, Filters, Diplexors)
- Transmitters
- Broadcast
- Receivers
- Radar
- Test & Measurement
- Instrumentation
- LANs

## Features

- Accommodates a wide range of popular coaxial cables. Provides threaded coupling mechanisms.
- Available in crimp terminations to provide for low cost installations.

# N Series

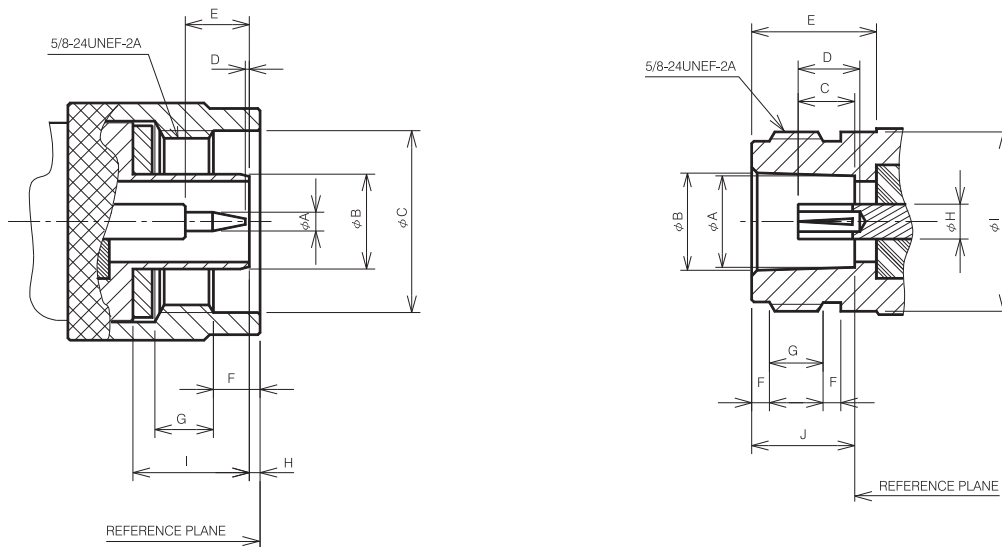
## Specification N 50 ohm 0-12.4 GHz

N Series coaxial connectors are medium-sized, threaded coupling connectors designed for use from DC to 12.4 GHz. Their consistently low broadband VSWR have made them popular over the years in many applications. The N series connector is impedance matched to 50 ohm cables.

Cable terminations are available in crimp, clamp and solder configurations. The threaded coupling ensures proper mating in applications where shock and extreme vibration are design considerations.

N connectors are used in aerospace, broadcast audio and video applications as well as many microwave components such as filters, couplers, dividers, amplifiers and attenuators to name a few.

## Interface Mating Dimensions:



### PLUG

Letter	Millimeters(Inches)	
	Minimum	Maximum
A	1.60 (0.063)	1.68 (0.066)
B	7.95 (0.313)	8.03 (0.3158)
C	16.00 (0.630)	-
D	0.08 (0.003)	-
E	5.33 (0.210)	5.84 (0.230)
F	4.01 (0.158)	4.27 (0.168)
G	4.50 (0.177)	-
H	0.41 (0.016)	1.52 (0.060)
I	10.11 (0.398)	10.46 (0.412)

### JACK

Letter	Millimeters(Inches)	
	Minimum	Maximum
A	8.03(.316)	8.13(.320)
B	8.53(.336)	8.74(.344)
C	4.75(.187)	5.26(.207)
D	5.33(.210)	-
E	10.72(.422)	-
F	1.19(.047)	1.96(.077)
G	4.37(.172)	5.13(.202)
H	3.00(.118)	3.15(.124)
I	-	15.93(.627)
J	9.04(.356)	9.19(.362)

# N Series

## Electrical :

Impedance	50 ohm	75 ohm
Frequency Range	0 to 11 GHz	0 to 1.5 GHz
VSWR	1.15 + 0.015 x f GHz max	
Voltage Rating	1500 volts rms max * RG-58,141,142,223→500 volts rms max * RG-174,188,316→335 volts rms max	
Dielectric withstanding Voltage	2,500 volts rms max * RG-58,141,142,223→1000 volts rms max * RG-174,188,316→750 volts rms max	
Contact resistance	center contact=1.0 milliohms max outer contact=2.0 milliohms max	
RF Leakage	-(90-f GHz) dB min	
Insertion Loss	0.05dB max X $\sqrt{f}$ GHz	
Insulator resistance	5,000 Megohms min	

## Mechanical & Environmental

Mating	5/8"-24 threaded coupling	
Durability	500 matings	
Coupling Nut Retention	100 lbs min	
Cable Retention	RG-58,141,142,223*40 lbs min RG-59,62A,210*40 lbs min RG-174,188,316*20 lbs min RG-8A, 9B, 213, 214*80 lbs min	
Temperature Range	-65°C to 165°C	
Vibration	MIL-STD-202 Method 204 test Cond.B.	
Salt Spray	MIL-STD-202 Method 101 test Cond.B.	
Temperature Cycling	MIL-STD-202 Method 107 test Cond.B.	

## Material

	Material	Plating
Connector Body	Brass	Gold or Silver or Nickel
Center Contact	Male: Brass Female : Brass, Phosphor Bronze or Beryllium-Copper	Gold Gold
Insulation	Teflon or Derlin	None
Gasket	Silicone Rubber, Rubber	None
Crimp Ferrule	Annealed Copper or Brass	Same as Body