

N Series

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 & Combiners, 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 installation.
- Interface according to IEC 169-16, CECC 22210, MIL-C-39012N, MIL-STD-348A/304

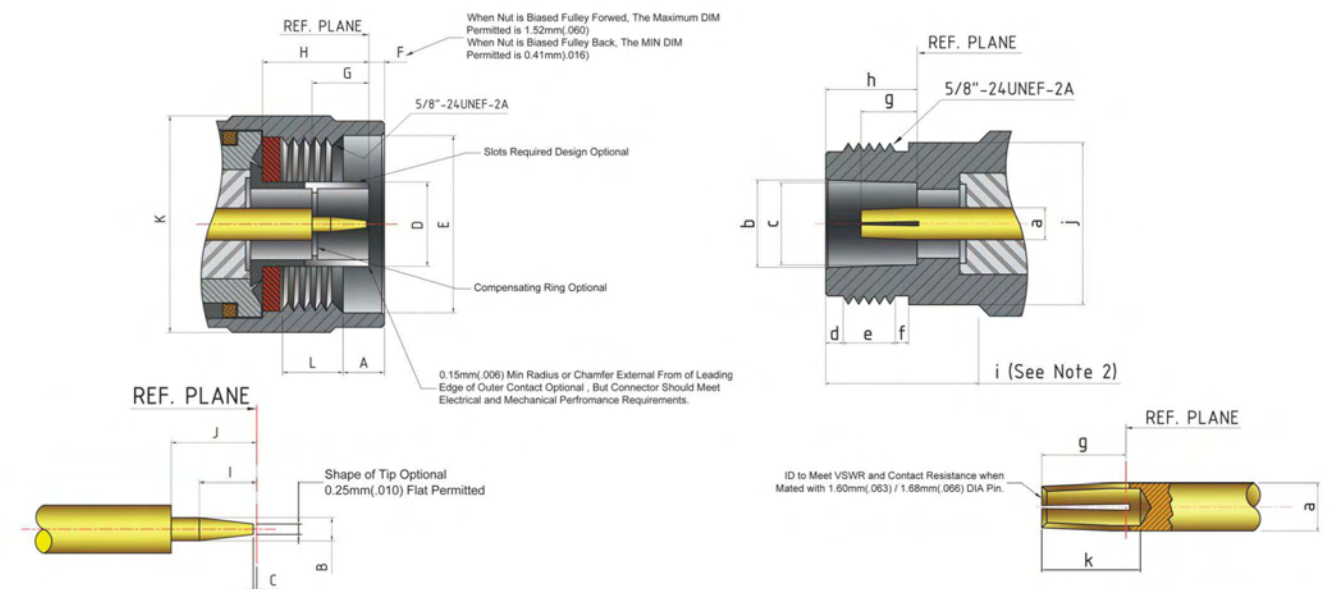


Specification

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



Note: This Interface Shall Meet the Gauge Requirements as Specified in MIL-C-39012/1.

Note:
1. This Interface Shall Meet the Gauge Requirements as Specified in MIL-C-39012/2.
2. Clearance for Mating Connector Coupling Nut.

PLUG

Letter	Milimeters (inches)	
	Minimum	Maximum
A	4.01(.158)	4.27(.168)
B	1.60(.063)	1.68(.066)
C	0.08(.003)	—
D	—	8.38(.330)
E	16.0(.063)	—
F	0.41(.016)	1.52(.060)
G	5.33(.210)	5.84(.230)
H	10.11(.398)	10.46(.412)
I	2.79(.110)	3.56(.140)
J	5.33(.210)	—
K	—	21.01(.827)
L	4.50(.117)	—

JACK

Letter	Milimeters (inches)	
	Minimum	Maximum
a	3.02(.119)	3.15(.124)
b	8.53(.336)	8.74(.344)
c	8.03(.316)	8.13(.320)
d	1.19(.047)	1.96(.077)
e	4.37(.172)	5.13(.077)
f	1.19(.047)	1.96(.077)
g	4.75(.187)	5.26(.207)
h	9.04(.356)	9.19(.362)
i	10.72(.422)	—
j	—	15.93(.627)
k	5.33(.210)	—



Electrical

Impedance	50Ω / 75Ω
Frequency Range	0 to 11 GHz / 0 to 1.5 GHz
VSWR	≤ 1.3 (straight connector) ≤ 1.35 (right angle)
RF Leakage	≥ 60 dB
Dielectric Withstanding Voltage	2500 V rms
Voltage Rating	≥ 1000 V rms (depending on cable)
Center Contact Resistance	≤ 1 mΩ
Outer Contact Resistance	≤ 1 mΩ
Insulation Resistance	≥ 5 GΩ

Mechanical

Mating	5/8-24 UNEF Screw-on
Connector Durability	≥ 500 Cycles (for beryllium copper female contact only)
Recommended Mating Torque	6.0 lbs ~ 10.0 lbs
Coupling Nut Retention Force	≥ 101.3 lbs
Cable Retention Force	≥ 12.1 lbs (for RG316) ≥ 28.7 lbs (for RG58) ≥ 94.5 lbs (for RG213)

Environmental

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. I


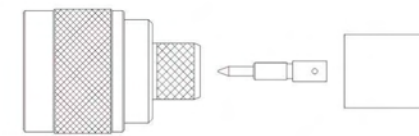
Material

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


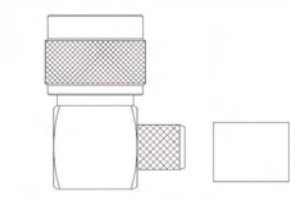
Note: Other Material/Finish is Available on Request.

Crimp Termination for Flexible Cable


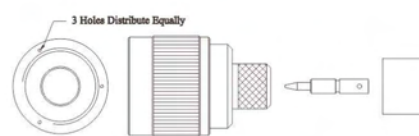
N Straight Crimp Plug

		Hand Tool	See Appendix B
		Cable	RG6/U, 8/U, 8/X, 11/U, 58/U, 59/U, 174/U, 178/U, 213/U, 316/U
		Cable Assembly Instruction	See Appendix A


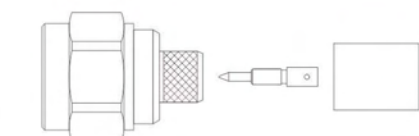
N R/A Crimp Plug

		Hand Tool	See Appendix B
		Cable	RG8/U, 8/X, 58/U, 174/U, 213/U, 316/U
		Cable Assembly Instruction	See Appendix A Code H


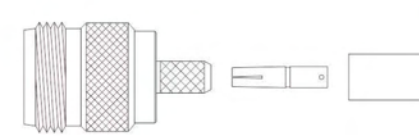
N Straight Crimp Plug, Vibration Proof

		Hand Tool	See Appendix B
		Cable	RG6/U, 8/U, 8/X, 11/U, 58/U, 59/U, 174/U, 178/U, 213/U, 316/U
		Cable Assembly Instruction	See Appendix A Code E

N Straight Crimp Plug

		Hand Tool	See Appendix B
		Cable	RG6/U, 8/U, 8/X, 11/U, 58/U, 59/U, 174/U, 178/U, 213/U, 316/U
		Cable Assembly Instruction	See Appendix A Code E


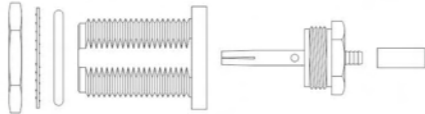
N Straight Crimp Jack

		Hand Tool	See Appendix B
		Cable	RG8/U, 8/X, 58/U, 174/U, 213/U, 316/U
		Cable Assembly Instruction	See Appendix A Code E


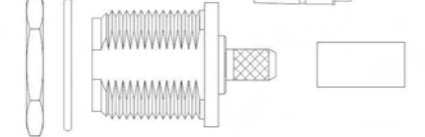


Crimp Termination for Flexible Cable


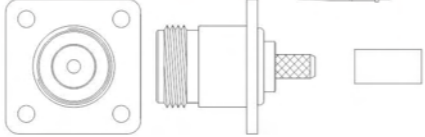
N Bulkhead Crimp Jack

		Hand Tool	See Appendix B
		Cable	RG58/U, 174/U, 316/U
		Cable Assembly Instruction	See Appendix A Code D


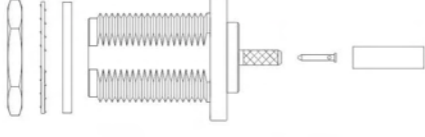
N Bulkhead Crimp Jack

		Hand Tool	Nil
		Cable	RG8/U, 8/X, 58/U, 59/U, 213/U
		Cable Assembly Instruction	See Appendix A Code E


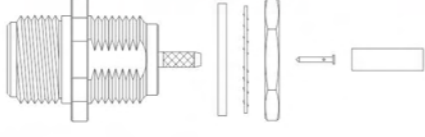
N Crimp Jack, Panel Type

		Hand Tool	Nil
		Cable	RG58/U, 174/U, 316/U
		Cable Assembly Instruction	See Appendix A Code E

N Bulkhead Crimp Jack


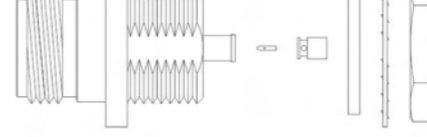
		Hand Tool	See Appendix B
		Cable	Mini Coaxial Cable, RG8/X, 58/U, 174/U, 178/U, 316/U
		Cable Assembly Instruction	See Appendix A Code E

N Bulkhead Crimp Jack

		Hand Tool	See Appendix B
		Cable	RG174/U, 316/U
		Cable Assembly Instruction	See Appendix A Code E


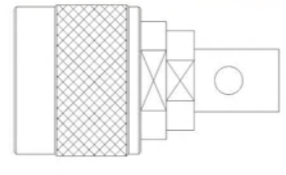


N Bulkhead Jack


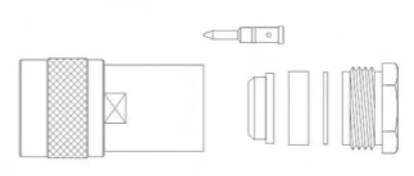
		Hand Tool	See Appendix B
		Cable	RG174/U, 316/U
		Cable Assembly Instruction	See Appendix A Code G

Clamp Termination for Flexible Cable


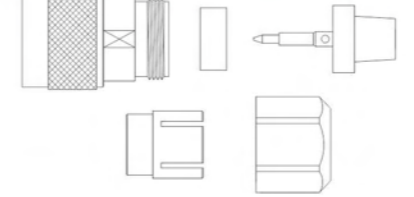
N Straight Plug (3D,5D,8D,10D)

		Hand Tool	Nil
		Cable	3D-2V,5D-2V,8D-2V, 10D-2V
		Cable Assembly Instruction	See Appendix A


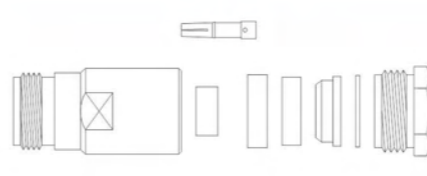
N Straight Clamp Plug

		Hand Tool	Nil
		Cable	RG8/U, 8/X, 58/U, 59/U, 213/U
		Cable Assembly Instruction	See Appendix A Code L

N Straight Clamp Plug (3D,5D,8D,10D)

		Hand Tool	Nil
		Cable	3D-2V,5D-2V,8D-2V, 10D-2V
		Cable Assembly Instruction	See Appendix A

N Straight Clamp Jack

		Hand Tool	Nil
		Cable	RG8/U, 8/X, 58/U, 59/U, 213/U
		Cable Assembly Instruction	See Appendix A Code L