

HN Series Connectors

Aptiv HN Series connectors are medium-to-large threaded coaxial RF connectors capable of providing reliable performance to 4 GHz. Good power handling and voltage breakdown characteristics are available in a small package with the added security and vibration resistance of threaded coupling. Used in radar, broadcast, industrial RF and test & measurement applications, HN connectors offer both mechanical and electrical performance reliability.



KEY FEATURES & BENEFITS

- High Power – Supports transmitters and high-power test setups
- Secure Coupling – Threaded design ensures vibration-resistant, stable connections
- Voltage Safe – Resists arcing and breakdown at high voltage levels
- Broad Frequency – Reliable operation up to 4 GHz
- 50 Ω Standard – Compatible with most RF systems
- Durable Construction – Sturdy materials provide mechanical strength and environmental resistance
- Outdoor Ready – Suitable for moderate outdoor conditions

PRODUCT SPECIFICATIONS

Electrical Properties*	
Impedance	50 Ohms
Frequency Range	DC to 4 GHz (typical); some variations may slightly exceed this.
Voltage Rating	1500 VRMS (max.)
Dielectric Withstanding Voltage	5000 VRMS (min.)
Contact Resistance	Center Contact: $\leq 1.0 \text{ m}\Omega$ Outer Contact: $\leq 0.5 \text{ m}\Omega$
Insulation Resistance	$\geq 5000 \text{ M}\Omega$
VSWR (Voltage Standing Wave Ratio)	Typical: $\leq 1.30 \text{ dB @ 3GHz}$
Insertion Loss	$\leq 0.1 \text{ dB @ 3 GHz (typical)}$
RF Leakage	$\geq -70 \text{ dB @ 3 GHz (typical)}$

*reference website for specific part number specifications

PRODUCT SPECIFICATIONS CONTD.

Environmental Properties*	
Temperature Range	-65°C to +165°C (standard)
Thermal Shock	MIL-STD-202, Method 107, Test Condition B (from -65°C to +165°C)
Vibration	MIL-STD-202, Method 204, Test Condition B (15 G's)
Shock	MIL-STD-202, Method 213, Test Condition I (100 G's)
Moisture Resistance	MIL-STD-202, Method 106
Corrosion (Salt Fog)	MIL-STD-202, Method 101, Test Condition B (48 hours)
Altitude	MIL-STD-202, Method 105, Test Condition C (70,000 ft)
Durability	Engineered for reliable performance in various environmental conditions common to industrial and military applications.

*reference website for specific part number specifications

PRODUCT SPECIFICATIONS CONTD.

Mechanical Properties*	
Coupling Mechanism	Threaded (often 5/8"-24 NEF-2A thread, but can vary)
Mating Cycles	≥ 500 cycles
Coupling Nut Retention	100 lbs min.
Cable Retention	Varies by cable type and termination method (designed for larger diameter cables)
Body Material	Brass or Stainless Steel (typically nickel or passivated)
Center Contact Material	Brass or Beryllium Copper (typically silver or gold plated)
Dielectric/Insulator Material	PTFE (Polytetrafluoroethylene)
Interface Dimesions	Conforms to MIL-STD-348, Interface 312, and often MIL-C-3608.

*reference website for specific part number specifications