Technical
Data Sheet

N M Solder for SM250 Cable

P/N: AT3N1S-6V

Product Feature:

- Connector Type : N Type
- Polarity : Standard
- Gender : Male/Plug
- Geometry : Straight
- Termination Style : Solder
- Cable : SM250
- Application: General Purpose/Telecom etc.

The **N Male Solder Connector** for **SM250** (0.250") cable is a high-performance RF solution designed for precision 50-ohm signal transmission up to **8 GHz**. By utilizing a **solder-on** connection for both the center contact and the outer conductor, it ensures a seamless, high-conductivity bond that minimizes signal leakage and Passive Intermodulation (PIM). This connector is essential for **microwave subsystems**, **high-power RF amplifiers**, and **laboratory test assemblies** where **phase stability** and **mechanical rigidity** are paramount. Its gold-plated contacts and rugged construction provide a durable, low-loss interface for critical **aerospace, defense, and advanced telecommunications hardware.**

Electrical Specifications

Parameter	Value	Unit
Characteristic Impedance	50	Ω
Frequency Range	DC ~ 8	GHz
VSWR	≤ 1.15	@DC-4 GHz
	≤ 1.20	@3-6 GHz
Insertion Loss	≤ 0.05	@DC-5 GHz
Insulation Resistance	≥ 5000	MΩ
Dielectric Withstanding Voltage	≥ 2.5	kVrms
Inner Conductor Resistance	≤ 1.0	mΩ
Outer Conductor Resistance	≤ 0.25	mΩ
PIM	≤ -155	dBc@(2×43dBm)
RF Leakage	≤ -85	dB @3GHz

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Material & Plating		
Component	**Material**	**Plating**
Center Conductor	Phosphor bronze	Gold
Outer Conductor/Body	Brass	Tri-Alloy
Coupling Nut	Brass	Nickel
Shield Clamp	Brass	Nickel
Dielectric	PTFE	-
Gasket	Silicone rubber	-

Mechanical & Environmental Specifications		
Parameter	**Value**	**Unit**
Durability (Matings)	≥ 500 min.	-
Coupling nut torque	25/30	Nm
Cable Type Compatibility	SM250 Cable	-
Operating Temperature	-40 ~ 85	°C
Ingress Protection (IP Rating)	IP67	-
Compliance	ROHS	-

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