

Standard Cat6 & Cat5e Plugs

Cat6 RJ45 Connector UTP Standard Modular Plug 8P8C - 3-Prong 50μ" Gold Plated Contacts with Load Bar, 100% Virgin PC Material, Bulk & OEM

**Key specifications**

Model / Type	Cat6 UTP RJ45 modular plug, 8P8C, standard two-piece with load bar
Contact Blade	3-prong (tri-fork) insulation displacement contact, staggered layout
Pin Material	Phosphor bronze, nickel underplated
Gold Plating	3μ" / 6μ" / 15μ" / 30μ" / 50μ" optional

Product summary

2. Short Description (List Format)

- **Standard Cat6 UTP 8P8C RJ45 modular plug** rated to 250MHz — full Gigabit Ethernet (1000BASE-T) and short-run 10GBASE-T support
- **Staggered contact layout with insert load bar** keeps pair untwist minimal for guaranteed NEXT/return-loss headroom on Fluke tests
- **3-prong (tri-fork) gold plated blades** — phosphor bronze pins, 3μ"-50μ" gold options, ≤20mΩ contact resistance, 750+ mating cycles
- **100% virgin PC (polycarbonate) housing** — crystal clear, UL 94V-2 flame retardant, no recycled resin, crack-free crimping
- **Fits Cat6 solid & stranded 23-26AWG cable**, insulated wire OD up to 1.05mm; compatible with all standard RJ45 crimp tools
- **Factory-direct OEM/ODM** — 100% Fluke DSX tested, RoHS/REACH/CE, private label packaging, 50M+ pcs monthly capacity, low MOQ

Product page:

<https://www.cnplugs.com/product/cat6-utp-rj45-connector-3-prong-gold-plated-plug/>

Category: Standard Cat6 & Cat5e Plugs

Contact & technical support

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Product details

Cat6 UTP RJ45 Connector - Standard 3-Prong Gold Plated Modular Plug with Load Bar, 100% Virgin PC Material

The Cat6 unshielded standard RJ45 modular plug from PROUNTA is a factory-direct 8P8C connector built for structured cabling contractors, patch cord assembly plants, telecom distributors, and network brands sourcing in bulk. Engineered with a staggered contact layout, an insert-style load bar, 3-prong gold plated blades, and a housing molded from 100% virgin polycarbonate, this connector maintains stable electrical performance up to 250MHz — the full bandwidth defined for [Category 6 cable](#) — and reliably supports Gigabit [Ethernet](#) as well as 10GBASE-T over shorter channel lengths.

As a certified RJ45 connector manufacturer, PROUNTA controls pin stamping, nickel/gold electroplating, precision injection molding, and 100% Fluke DSX component testing in-house. Every carton is traceable to its plating batch and test record, giving purchasing teams consistent quality across repeat orders.

Standard Cat6 Structure: Staggered Contacts + Load Bar

Unlike Cat5e plugs that align all eight conductors in a single row, a true Cat6 plug must manage larger 23AWG conductors and tighter crosstalk budgets. This connector uses the industry-standard two-piece design: conductors are first threaded through a load bar (insert) that stages them in a staggered high/low pattern, then the loaded insert slides into the plug body for crimping. The staggered geometry increases conductor-to-conductor spacing at the termination point, minimizing near-end crosstalk (NEXT) and preserving return-loss margin — the two parameters that most often fail on cheap "Cat6" plugs during Fluke certification. The load bar also holds the pair sequence firmly, cutting mis-wire rejects on high-speed production lines.

3-Prong Gold Plated Contacts for Solid and Stranded Wire

Each contact blade is stamped from high-elasticity phosphor bronze, nickel underplated, then finished with hard gold in 3μ", 6μ", 15μ", 30μ" or 50μ" thickness. The 3-prong (tri-fork) insulation displacement design drives three staggered tines through the insulation from alternating angles, biting directly into the copper core. Compared with 2-prong blades, this delivers a larger redundant contact area, lower and more stable contact resistance ($\leq 20\text{m}\Omega$), and dependable termination on both solid and stranded conductors — essential for PoE and PoE+ loads where a marginal contact point can overheat. Gold plating thickness is verified by X-ray measurement and salt spray testing, with batch reports available on request.

100% Virgin PC Housing - Clarity, Strength, No Recycled Resin

This plug is molded exclusively from 100% virgin polycarbonate (Teijin/Covestro grade) with zero recycled or blended resin. Buyers see the difference immediately: a crystal-clear body for instant T568A/T568B sequence inspection, a resilient latch that survives repeated plugging without snapping, and a housing that will not crack or whiten under crimping pressure. The material is UL 94V-2 flame retardant and holds dimensional tolerance within $\pm 0.05\text{mm}$, ensuring smooth, full-seat insertion into any standards-compliant RJ45 jack, keystone, or patch panel port.

Applications

This standard Cat6 unshielded plug is the volume choice for enterprise and campus LAN backbones, Gigabit office cabling, PoE IP camera and wireless access point drops, smart building and hospitality wiring, and factory patch cord production. Built to the standardized 8P8C [modular connector](#) geometry, it is fully backward compatible with Cat5e/Cat5 links and inter-mateable with every standard RJ45 jack, coupler, and panel on the market.

OEM/ODM & Bulk Ordering Support

Q1: What is the difference between this standard Cat6 plug and a Cat5e plug?

A genuine Cat6 plug uses a staggered contact layout and a load bar to control crosstalk at 250MHz, and accepts thicker 23AWG conductors. A Cat5e plug has an in-line layout rated only to 100MHz. Using Cat5e plugs on Cat6 cable typically fails Fluke NEXT testing.

Q2: Does the load bar slow down production crimping?

Only marginally. The load bar pre-stages the conductors, so operators verify sequence before insertion — most assembly lines report fewer mis-wire rejects and a net gain in first-pass yield.

Q4: Will it fit my existing crimping tools and Cat6 cable brands?

Yes. It works with all standard 8P8C crimp tools (non-pass-through type) and accepts mainstream Cat6 UTP cables with insulated wire OD up to 1.05mm and jacket OD up to 6.5mm. Send us your cable sample and we will verify fit before mass production.

Technical specifications

Specification	Published value
Model / Type	Cat6 UTP RJ45 modular plug, 8P8C, standard two-piece with load bar
Contact Blade	3-prong (tri-fork) insulation displacement contact, staggered layout
Pin Material	Phosphor bronze, nickel underplated
Gold Plating	3μ" / 6μ" / 15μ" / 30μ" / 50μ" optional
Housing Material	Transparent polycarbonate (PC)
Compatible Cable	Cat6 UTP, solid or stranded, 23–26AWG
Cable OD / Insulated Wire OD	≤6.5mm / 0.85–1.05mm
Frequency / Application	250MHz; 1000BASE-T, 10GBASE-T (short run), PoE / PoE+ (IEEE 802.3af/at)
Durability	≥750 insertion cycles; contact resistance ≤20mΩ
Operating Temperature	-40°C to +70°C
Standards	ANSI/TIA-568.2-D Cat6, ISO/IEC 11801, FCC Part 68, IEC 60603-7
Certifications	RoHS, REACH, CE, UL; 100% Fluke DSX component tested
Packaging	100 pcs/bag, 1000 pcs/box; OEM bags, tubs, blister packs available