

Standard Cat6 & Cat5e Plugs

Cat6 UTP RJ45 Modular Plug - 50μ Gold Plated | PROUNTA Factory

**Key specifications**

Category	Cat6 UTP
Gold Plating thickness	50μ (micro-inches)
Contact material	Phosphor bronze, tin-underplated
Housing material	Transparent polycarbonate (PC)

Product summary

- **Product Type:** Cat6 UTP (Unshielded Twisted Pair) Modular RJ45 Plug
- **Gold Plating:** 50μ (50 micro-inches) on 3-prong IDC contacts – excellent conductivity & corrosion resistance
- **Contact Material:** Phosphor bronze, tin-finished – ≥750 mating cycles
- **Housing:** Japanese PC, UL94V-2/V-0 flame-retardant, transparent/white options
- **Wire Compatibility:** Solid & stranded 23-24 AWG, cable OD 5.8-6.5 mm
- **Performance:** Cat6 / Ethernet 1 Gbps, PoE-compatible (up to 30 W), -40 °C ~ +85 °C
- **Packaging:** 100 pcs per bag; OEM/ODM bulk packs available (MOQ 1000 pcs)
- **Certifications:** UL-listed, RoHS-compliant, IEC 60603-7

Product page:

<https://www.cnplugs.com/product/cat6-utp-rj45-connector-50u-gold-plated/>

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Contact & technical support

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Product details

Product Introduction

The **Cat6 UTP RJ45 modular plug** is the backbone of modern Ethernet networks, delivering reliable 1 Gigabit connectivity for desktop, indoor, and light-industrial installations. PROUNTA's 50μ gold-plated version adds premium contact durability, making it ideal for PoE-enabled devices, harsh temperature ranges, and high-frequency applications where signal loss must be minimized. Each plug is manufactured with precision-stamped phosphor-bronze contacts, a Japanese polycarbonate housing that meets UL94V-2/V-0 standards, and is designed for 23-24 AWG solid or stranded copper cable. The result is a plug that maintains low contact resistance, consistent performance across repeated insertions, and a clean, professional look for both OEM branding and direct-market sales.

Key Features

- **50μ Gold Plating:** Ensures low oxidation, stable electrical performance, and extended service life in corrosive environments.
- **Phosphor Bronze Contacts:** Superior spring-back and current-carrying capacity compared with brass alternatives.
- **UL-94V-0 Housing:** Meets the highest flame-retardant rating for safety in commercial and industrial equipment.
- **Pass-Through Design (optional):** Wires can be inserted fully before crimping, simplifying termination and verifying wire order.
- **Temperature Range:** -40 °C to +85 °C – suitable for outdoor, telecom, and factory-floor environments.
- **PoE Compatible:** Rated for up to 30 W (PoE/PoE+) without overheating or performance degradation.

Application Scenarios

This plug is purpose-built for **Ethernet networks that demand both performance and durability**. Typical use cases include:

- **Office and commercial wiring:** Cat6 desktop patch panels, workstation connections, and VoIP phones.
- **PoE-powered installations:** IP cameras, wireless access points, and digital signage where reliable contact resistance is critical under continuous power.
- **Industrial Ethernet:** Factory floors, automation lines, and harsh-environment cabinets where temperature fluctuations and vibration are present.
- **Outdoor and telecom:** Enclosures with weather-proof boots, point-to-point links, and rural broadband distribution.

The 50μ gold finish makes the plug especially suitable for installations that are frequently connected/disconnected, or where oxidation could impair signal quality over time.

Certifications & Compliance

Every batch of PROUNTA Cat6 UTP RJ45 plugs undergoes rigorous testing:

- **UL Listed:** File E357878 – verified for electrical and fire safety.
- **RoHS:** Restriction of hazardous substances – compliant with EU and RoHS-2 directives.
- **IEC 60603-7:** International standard for information-technology connectors – mechanical and electrical performance.
- **Temperature & Weathering:** -40 °C to +85 °C cycling test, humidity resistance, and salt-spray exposure for corrosion verification.

Test reports (X-ray plating thickness, contact resistance $\leq 0.1 \Omega$, 750-cycle mating test) are available on request for OEM/ODM partners.

Ordering, Packaging & OEM/ODM Options

Further Reading & Internal Resources

- Related guide: [How to Choose the Right RJ45 Plug for 23 AWG, 24 AWG, and 26 AWG Cable](#)
- Gold-plating reference: [RJ45 Gold Plating Guide: 3μ, 15μ, and 50μ Contacts](#)
- Shielded vs. unshielded decision: [UTP vs. STP RJ45 Plugs: When Should You Use Shielded Connectors?](#)

External Reference Links

For technical background on the technology behind this product, see:

- [RJ45 - Wikipedia](#) – describes the physical interface, pinout, and history of the 8-position modular connector.
- [Ethernet - Wikipedia](#) – overview of Cat6 specifications, bandwidth, and PoE standards.

Technical specifications

Specification	Published value
Category	Cat6 UTP
Gold Plating thickness	50μ (micro-inches)
Contact material	Phosphor bronze, tin-underplated
Housing material	Transparent polycarbonate (PC)
AWG range	23-24 AWG (solid & stranded)
Cable outer diameter	5.8-6.5 mm
Mating cycles (min)	750 cycles
Operating temperature	-40 °C to +85 °C
PoE support	Up to 30 W (PoE, PoE+)
Standards compliance	IEC 60603-7, UL-listed, RoHS