

RJ45 Connector Accessories

Industrial 3-Way RJ45 Network Splitter Adapter & 1-to-2 Ethernet Cable Inline Coupler Connector



Key specifications

Connector Type	8P8C RJ45 Female to Dual 8P8C RJ45 Female (3-Way Tee)
Wiring Architecture	Parallel Pinout / Pass-Through Extension
Compatible Cable Standards	Cat5, Cat5e, Cat6, Cat6a Shielded & Unshielded Cables
Internal Routing	Heavy-Duty Flame Retardant FR-4 PCB Board

Product summary

- **1-to-2 Expansion & Coupling:** Functions as a 3-way RJ45 tee adapter, allowing versatile connection switching, network cable extension, and custom wiring distribution in telecom setups.
- **Pre-shielded Anti-Interference PCB:** Built with internal thick metallic PCB trace routing and shielding to minimize Crosstalk (NEXT) and Electromagnetic Interference (EMI).
- **50µ" Gold-Plated Contacts:** Equipped with high-conductivity 8P8C gold-plated contact pins to ensure stable signal transmission and maximum corrosion resistance over long-term use.
- **Heavy-Duty ABS Housing:** Enclosed in impact-resistant, high-temperature retardant ABS plastic for long-lasting performance in office and industrial environments.
- **Universal Compatibility:** Seamlessly works with Cat5, Cat5e, Cat6, and Cat6a standard Ethernet patch cables using standard T568A/T568B pin configurations.

Product page:
<https://www.cnplugs.com/product/rj45-network-splitter-adapter-1-to-2-3-way-coupler/>
Category: RJ45 Connector Accessories

Contact & technical support

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Product details

High-Performance 3-Way RJ45 Network Splitter & Cable Extension Coupler

In modern network cabling installations, temporary interface extensions and line splitting often present continuous field challenges. Our **3-Way RJ45 Network Splitter Adapter** offers an efficient, toolless hardware solution designed to resolve Ethernet cable reach limitations and multi-device connection configurations. Manufactured for high-density networking environments, IT infrastructure maintenance, and custom automation projects, this adapter delivers structural durability and clean signal transmission.

Constructed in ISO-certified manufacturing facilities, each unit incorporates high-density printed circuit board (PCB) routing inside a thick, protective ABS enclosure. Whether deployed in office server racks, smart home media boxes, or industrial telecom systems, our RJ45 adapters guarantee long-lasting physical and electrical integrity.

Key Features & Engineering Advantages

1. Robust 3-Way Tee Coupling Architecture

Standard inline couplers only connect two lines in a straight line. Our 3-way tee design provides three female 8P8C ports in a single, compact housing. This versatile layout lets engineers construct convenient butt-joint connections, route diagnostic monitoring leads, or split signals across customized network segments without soldering or complex field crimping.

2. Multi-Layer PCB Insulation & Zero Interference

Unlike cheap wired adapters that rely on loose internal wiring strands causing high attenuation, our adapter utilizes a multi-layer FR-4 copper PCB. This internal routing ensures equal impedance across all pins, protecting line integrity against high-frequency electromagnetic interference (EMI) and reducing cross-channel signal loss. You can explore our full catalog of [Ethernet modular connectors](#) to complete your cabling setup.

3. Precision Gold-Plated Contacts & Industrial ABS Shell

Electrical contact stability directly impacts network latency. Featuring pure copper 3-prong contact blades plated with gold over a nickel sub-layer, this connector delivers exceptional oxidation resistance and low contact resistance. For complete technical guidelines on pin layouts, refer to [Ethernet over Twisted Pair Documentation](#).

Target Industry Applications

Our RJ45 3-way adapters support a wide range of commercial, industrial, and IT system deployments:

- **Office & Commercial Workstations:** Quick extension of existing wall outlet cables without pulling new lines through conduits.
- **Security & Surveillance Systems:** Connecting IP camera feeds and power distribution points within localized junction boxes.
- **Industrial Ethernet & Automation:** Interfacing PLC control panels, sensor lines, and diagnostic terminals. View our specialized [industrial Ethernet connectors](#) for ruggedized field deployments.
- **Telecom Patch Panels & Racks:** Managing quick test points and patch extensions in server rooms.

Quality Control & Factory Inspection Standards

To ensure zero-defect delivery across large-volume OEM orders, our factory enforces a multi-stage testing process according to [Modular Connector Quality Standards](#):

1. **100% Automated Pinout Continuity Testing:** Every unit undergoes automated pin-to-pin testing to rule out open circuits, short circuits, or miswiring.
2. **High-Voltage Insulation Resistance Test:** Verifies that internal PCB traces prevent high-voltage leakage during power spikes.
3. **Physical Plug Insertion & Retention Force Test:** Tests latch retention to ensure cables remain

locked in place even under physical strain (minimum 50N retention force).

- 4. **Salt Spray Corrosion Testing:** Gold-plated contacts are subjected to a 24-hour salt spray mist to guarantee long-term operation in humid environments.

Technical specifications

Specification	Published value
Connector Type	8P8C RJ45 Female to Dual 8P8C RJ45 Female (3-Way Tee)
Wiring Architecture	Parallel Pinout / Pass-Through Extension
Compatible Cable Standards	Cat5, Cat5e, Cat6, Cat6a Shielded & Unshielded Cables
Internal Routing	Heavy-Duty Flame Retardant FR-4 PCB Board
Contact Material	High-Purity Phosphor Bronze with Gold Plating
Contact Plating Thickness	Flash Gold / 15µ" / 30µ" / 50µ" Gold Options
Housing Material	Fire-Retardant ABS (UL 94V-0 Rated)
Insertion Cycles	≥ 1,200 Mating Cycles
Working Temperature	-20°C to +70°C (-4°F to 158°F)
Current / Voltage Rating	1.5 Amps @ 125 VAC
Dielectric Strength	1000V RMS 50Hz/60Hz for 1 Min
Compliance & Standards	RoHS, REACH, CE, TIA/EIA-568-C.2 Compliant