



# RJ11 Cat3 UTP Modular Plug

Standard (Non-Pass-Through) | 6P4C | Cat3 UTP (16 MHz) | Gold-Plated Contacts



## 1. GENERAL DESCRIPTION

RJ11 Category 3 UTP modular plug is a 6-position, 4-contact (6P4C) connector for field termination of telephone and voice cable. It is used to make telephone cords, modem and DSL cables and to terminate extension wiring, giving reliable voice-grade connections that meet Category 3 requirements. The clear, flame-retardant housing and gold-plated contacts provide stable electrical performance and make it easy to check the conductor order before crimping.

## 2. KEY FEATURES

- 6P4C RJ11 connector, Category 3 (16 MHz) unshielded (UTP), suitable for voice and DSL
- Gold-plated phosphor bronze contacts for low contact resistance and corrosion resistance
- Standard (non-pass-through) design with internal wire guide for accurate conductor positioning
- Clear, flame-retardant polycarbonate housing, UL 94 V-0, lets you check the conductor order and seating
- Suitable for round Cat3 UTP cable and flat telephone cord, solid or stranded
- Strong strain relief and latch: positive snap with standard RJ11 jacks

## 3. APPLICATIONS

- Making telephone cords and extension cables of custom length
- Termination of voice cable for telephones, fax machines, modems and DSL / ADSL routers
- Alarm panels, intercoms and low-speed control wiring; repair and re-termination of damaged plugs

## 4. APPLICABLE STANDARDS

- ANSI/TIA-568 series — Category 3 cable and connecting hardware
- FCC 47 CFR Part 68 (Subpart F) — Modular plug requirements [confirm]
- ANSI/TIA-1096-A — Modular plug dimensions [confirm]
- UL 94 V-0 — Flammability of plastic housing; RoHS [Compliant — Directive 2011/65/EU]

## 5. CONSTRUCTION & MATERIALS

|                         |                                                                                                          |
|-------------------------|----------------------------------------------------------------------------------------------------------|
| <b>Connector</b>        | RJ11 (6P4C) modular plug, unshielded (UTP)                                                               |
| <b>Housing</b>          | Clear polycarbonate, UL 94 V-0                                                                           |
| <b>Contacts</b>         | Phosphor bronze, gold-plated — [15 µm / 0.38 µm], 4 contacts in positions 2–5                            |
| <b>Wire Guide</b>       | Internal, for conductor alignment                                                                        |
| <b>Strain Relief</b>    | Integrated strain-relief tab                                                                             |
| <b>Compatible Cable</b> | Cat3 UTP round cable or flat telephone cord, solid or stranded, [24–28 AWG]; round cable OD [3.0–4.5 mm] |



|                  |                                         |
|------------------|-----------------------------------------|
| Termination Tool | Standard RJ11 / RJ12 (6P) crimping tool |
|------------------|-----------------------------------------|

## 6. MECHANICAL & ENVIRONMENTAL

|                       |                                |
|-----------------------|--------------------------------|
| Mating Cycles (min.)  | [750] cycles                   |
| Cable Retention Force | [ ≥ 30 N ]                     |
| Operating Temperature | [-20 °C to +60 °C]             |
| Storage Temperature   | [-40 °C to +70 °C]             |
| Relative Humidity     | [10 % to 90 %, non-condensing] |

## 7. ELECTRICAL CHARACTERISTICS

|                              |                                                                              |
|------------------------------|------------------------------------------------------------------------------|
| Contact Resistance           | [ ≤ 20 mΩ ]                                                                  |
| Insulation Resistance        | [ ≥ 500 MΩ ]                                                                 |
| Dielectric Withstand (1 min) | [ 1000 V AC ]                                                                |
| Current Rating per Contact   | [1.5 A]                                                                      |
| Max. Operating Voltage       | [150 V]                                                                      |
| Transmission Category        | Category 3 — up to 16 MHz (when terminated with Cat3 cable per instructions) |

## 8. WIRING (PIN ASSIGNMENT — 4-WIRE TELEPHONE CORD)

| Pin | Colour | Function                               |
|-----|--------|----------------------------------------|
| 1   | —      | Not used (no contact)                  |
| 2   | Black  | Line 2 conductor (second line / spare) |
| 3   | Red    | Line 1 — Ring                          |
| 4   | Green  | Line 1 — Tip                           |
| 5   | Yellow | Line 2 conductor (second line / spare) |
| 6   | —      | Not used (no contact)                  |

## 9. TERMINATION GUIDELINES

- Strip about 12–15 mm of the outer jacket (or cut a flat cord cleanly) without nicking the conductor insulation.
- Arrange the four conductors in the required colour order, cut them evenly, and insert them fully until each wire reaches the end of the plug.
- Check through the clear housing that the wire order is correct and the jacket sits behind the strain-relief position.
- Crimp in a standard RJ11 / RJ12 crimping tool in one firm squeeze, ensuring the contacts pierce the insulation and the strain relief grips the jacket.
- Test every terminated cord with a cable tester and do not re-use a crimped plug.