



Cat5e RJ45 Shielded Modular Plug

Standard (Non-Pass-Through) | 8P8C | Cat5e Shielded | Metal Shell | Gold-Plated Contacts



1. GENERAL DESCRIPTION

Cat5e RJ45 shielded modular plug is an 8P8C connector with a full metal shield for field termination of foil- or braid-screened Category 5e cable (F/UTP, SF/UTP, S/FTP). The metal shell bonds to the cable screen and to the shielded jack, keeping the shield continuous from cable to equipment and protecting data against EMI / RFI. Used to make shielded patch cords and to terminate equipment cables, it gives reliable Category 5e performance with Gigabit Ethernet and PoE.

2. KEY FEATURES

- Category 5e (100 MHz) performance with full metal shield (shielded construction)
- Metal shell with shield contact tabs bonds to the cable screen and to the shielded jack for continuous grounding
- Gold-plated phosphor bronze contacts for low contact resistance and corrosion resistance
- Standard (non-pass-through) design with internal wire guide / load bar for accurate pair positioning
- Flame-retardant polycarbonate insert, UL 94 V-0, with nickel-plated metal shield for durability
- Suitable for solid and stranded shielded Cat5e cable (F/UTP, SF/UTP, S/FTP), [24–26 AWG]
- Strong strain relief and latch: positive snap with standard RJ45 jacks

3. APPLICATIONS

- Making shielded Cat5e patch cords and equipment cords of custom length
- Termination of shielded Cat5e cable in EMI-prone areas: data centres, industrial plants, hospitals and broadcast rooms
- Repair and re-termination of damaged plugs; PoE, CCTV and access-point connections

4. APPLICABLE STANDARDS

- ANSI/TIA-568.2-D — Category 5e connecting hardware and cords
- ISO/IEC 11801 — Class D generic cabling
- IEC 60603-7-1 — 8-position shielded modular connector (RJ45)
- FCC 47 CFR Part 68 — Modular plug requirements
- UL 94 V-0 — Flammability of plastic housing; RoHS [Compliant — Directive 2011/65/EU]

5. CONSTRUCTION & MATERIALS

Connector	RJ45 (8P8C) modular plug, shielded
Housing	Polycarbonate insert, UL 94 V-0



Shield	Nickel-plated [zinc alloy / brass / steel] metal shell with shield contact tabs
Contacts	Phosphor bronze, gold-plated — [50 µin / 1.27 µm], [3-prong / 2-prong]
Wire Guide / Load Bar	[Included — internal / separate] for pair alignment
Strain Relief	Integrated strain-relief tab
Compatible Cable	Shielded Cat5e (F/UTP, SF/UTP, S/FTP), solid or stranded, [24–26 AWG], jacket OD [5.5–6.5 mm]
Termination Tool	Standard RJ45 (8P8C) crimping tool

6. MECHANICAL & ENVIRONMENTAL

Mating Cycles (min.)	[750] cycles
Cable Retention Force	[≥ 50 N]
Operating Temperature	[-20 °C to +60 °C]
Storage Temperature	[-40 °C to +70 °C]

7. ELECTRICAL CHARACTERISTICS

Contact Resistance	[≤ 20 mΩ]
Shield Contact Resistance	[≤ 50 mΩ]
Insulation Resistance	[≥ 500 MΩ]
Dielectric Withstand (1 min)	[1000 V AC]
Current Rating per Contact	[1.5 A]
Max. Operating Voltage	[72 V]
Transmission Category	Category 5e shielded — up to 100 MHz (when terminated with shielded Cat5e cable per instructions)

8. WIRING (PIN ASSIGNMENT)

Pin	T568B Colour	T568A Colour
1	White / Orange	White / Green
2	Orange	Green
3	White / Green	White / Orange
4	Blue	Blue
5	White / Blue	White / Blue
6	Green	Orange
7	White / Brown	White / Brown
8	Brown	Brown

9. TERMINATION GUIDELINES

- Strip about [20–25] mm of the outer jacket without nicking the screen or conductor insulation; fold the foil / braid back over the jacket and keep the drain wire along it.
- Untwist the pairs by no more than 13 mm (0.5 in) and arrange them in T568A or T568B order.
- Flatten and align the conductors, cut them evenly, and insert them fully until each wire reaches the end of the plug.



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- Check that the wire order is correct, the jacket sits behind the strain-relief position, and the folded screen / drain wire will contact the metal shell.
 - Crimp in a standard RJ45 crimping tool in one firm squeeze, ensuring the contacts pierce the insulation, the strain relief grips the jacket and the shell contacts the screen.
 - Test every terminated cord with a shielded-cable tester (including shield continuity) and do not re-use a crimped plug.