



Cat6A / Cat7 RJ45 Shielded Modular Plug

Standard (Non-Pass-Through) | 8P8C | Cat6A (500 MHz) / Cat7 (600 MHz) | Metal Shell | Gold-Plated Contacts



1. GENERAL DESCRIPTION

Cat6A / Cat7 RJ45 shielded modular plug is an 8P8C connector with a full 360° metal shield for field termination of individually screened 10 Gigabit cable (Cat6A F/FTP or S/FTP, and Cat7 S/FTP or F/FTP). A load bar / cable manager aligns the four pairs with their pair screens kept close to the contacts, and the metal shell bonds to the cable screen and the shielded jack for continuous grounding. Used to make shielded 10GBASE-T patch cords and terminate equipment cables, it provides reliable Category 6A performance up to 500 MHz and supports PoE / PoE++.

2. KEY FEATURES

- Category 6A (500 MHz) performance, also used with Category 7 cable (600 MHz) in RJ45 channels
- 360° metal shell with shield contact tabs bonds to the cable screen and the jack for continuous grounding
- Load bar / cable manager keeps pair positions and screens aligned for low crosstalk and alien-crosstalk performance
- 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
- Suitable for solid shielded Cat6A / Cat7 cable (F/FTP, S/FTP), [22–26 AWG]

3. APPLICATIONS

- Making shielded Cat6A / Cat7 patch cords and equipment cords of custom length
- Termination of shielded 10 Gigabit cable in EMI-prone areas: data centres, industrial plants, hospitals and broadcast rooms

4. APPLICABLE STANDARDS

- ANSI/TIA-568.2-D — Category 6A connecting hardware and cords
- ISO/IEC 11801 — Class EA (Cat6A) and Class F (Cat7) generic cabling
- IEC 60603-7-51 — 8-position shielded connector, Category 6A; IEC 60603-7-7 — Category 7 (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 Cat6A / Cat7 (F/FTP, S/FTP), solid, [22–26 AWG], jacket OD [6.5–8.0 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 6A — up to 500 MHz; Cat7 cable at Cat6A level in RJ45 channels (when terminated 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 [30–35] mm of the outer jacket without nicking the braid or pair screens; fold the overall braid / foil back over the jacket and keep the drain wire along it.
- Remove the pair foils back to the point of untwist, keep each pair twisted to within 13 mm (0.5 in) of the contacts, and arrange them in T568A or T568B order in the load bar.
- 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 the wire order, that the jacket sits behind the strain relief, and that the screen / drain wire will contact the metal shell.
 - Crimp in an RJ45 crimping tool in one firm squeeze so the contacts pierce the insulation and the shell grips the screen.
 - Test every cord with a shielded-cable tester (including shield continuity); never re-use a crimped plug.