

Cat6 Wiring Cheat Sheet (Print-Ready Single Page)

Standard: T568B (Industry Default) | T568A (Legacy/Government)

View: RJ45 plug clip down, metal pins facing you, Pin 1 = far left

1. RJ45 Pinout Color Chart

Pin	T568A	T568B (Most Common)	Pair	Gigabit Signal
1	White-Green	White-Orange	2	BI_DA+
2	Green	Orange	2	BI_DA-
3	White-Orange	White-Green	3	BI_DB+
4	Blue	Blue	1	BI_DC+
5	White-Blue	White-Blue	1	BI_DC-
6	Orange	Green	3	BI_DB-
7	White-Brown	White-Brown	4	BI_DD+
8	Brown	Brown	4	BI_DD-

2. Cable Type Rules

Straight-Through (99% of use cases): Both ends T568B (PC ↔ Switch / Router / Wall Jack)

Crossover (Rare, Auto-MDI-X obsolete most uses): One end T568A / One end T568B (Old device-to-device direct connect)

3. Cat6 Core Specifications

- Bandwidth:** 250 MHz (2.5× Cat5e)
- Max Speed & Distance:** 1Gbps @ 100m | 10Gbps @ ≤55m
- Mandatory Rule:** Use only Cat6-rated RJ45 plugs/jacks (Cat5e causes crosstalk & speed loss)
- Untwist Limit:** Max 13mm (0.5 inch) at termination (critical for Cat6 performance)

- **Structure Note:** Never crush internal cross-separator/spine inside plugs

4. PoE Wiring Modes

- **PoE Mode A:** Power over Pins 1-2 / 3-6
- **PoE Mode B:** Power over Pins 4-5 / 7-8
- **Compatibility:** Cat6 fully supports PoE, PoE+, PoE++

5. Wall Jack / Punch-Down Standard

Always terminate wall jacks & patch cords to **T568B** (no mixed standards). Cat6 keystone jack standard sequence: 1-2-5-4-8-7-3-6 (follow jack printed label).

6. Quick Troubleshooting Checklist

✅ Dual-end standard consistent | ✅ Minimal wire untwist | ✅ No crushed cross spine | ✅ 8-pin full contact | ✅ Cable length compliant | ✅ Tester full 8-pair pass

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(注：部分内容可能由 AI 生成)