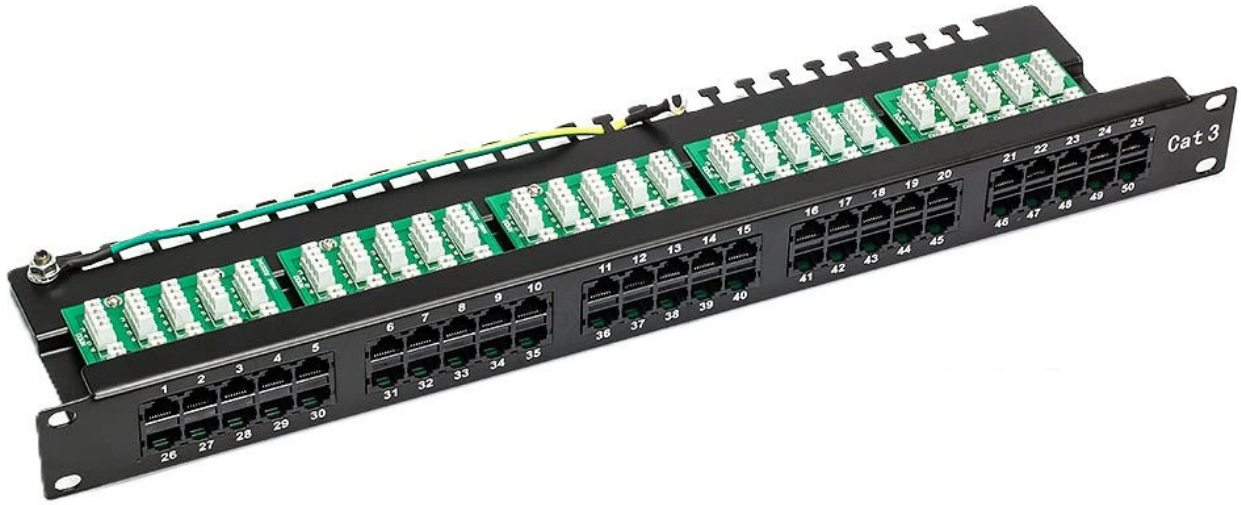
50-Port Cat3 UTP Patch Panel — Fully Loaded

50 × RJ45 Ports | Category 3 (16 MHz) | Unshielded UTP | 19" Rack Mount



1. GENERAL DESCRIPTION

50-port Category 3 UTP patch panel is a fully loaded, pre-assembled connecting hardware unit for voice and low-speed data cabling. It provides fifty RJ45 (8P8C) jacks on the front and 110-type IDC punch-down terminations on the rear, mounted on a rugged powder-coated steel frame for standard 19-inch racks. The panel gives a neat, organised cross-connect point for telephone and PBX systems, as well as 10BASE-T networks, and makes moves, adds and changes quick and easy.

2. KEY FEATURES

- Fully loaded: 50 RJ45 ports supplied pre-assembled, ready to terminate
- Rear 110-type IDC terminals for fast, reliable punch-down of 22–26 AWG solid cable
- Gold-plated phosphor bronze jack contacts for stable, low-resistance connections
- Sturdy cold-rolled steel frame, black powder-coated, with 19-inch mounting ears
- Clear port numbering (1–50) with designation label windows for easy identification
- Rear cable management bar to support cables and relieve strain

3. APPLICATIONS

- Telephone and PBX voice cross-connect in telecom closets and equipment rooms
- 10BASE-T Ethernet and low-speed data and control circuits
- Alarm, intercom and building management wiring
- Maintenance and expansion of existing Category 3 voice networks

4. APPLICABLE STANDARDS

- ANSI/TIA-568 series — Category 3 connecting hardware
- ISO/IEC 11801 — Class C generic cabling
- IEC 60603-7 — 8-position modular connector (RJ45)
- FCC 47 CFR Part 68 — Modular jack requirements
- EIA/ECIA-310-E — 19-inch rack mounting dimensions
- UL 94 V-0 — Flammability of plastic housing materials

5. CONSTRUCTION & MATERIALS

Ports	50 × RJ45 (8P8C), unshielded (UTP), fully loaded
Rear Termination	110-type IDC punch-down
Wire Range	22–26 AWG solid copper
Jack Housing	Flame-retardant polycarbonate, UL 94 V-0 — colour: [Grey / Black / Blue]
Jack Contacts	Phosphor bronze, gold-plated — [15 µin / 0.38 µm]
IDC Contacts	Phosphor bronze, tin-plated
Circuit Board	FR-4 PCB, [1.6 mm]
Frame	Cold-rolled steel, [1.5 mm], black powder-coated
Labelling	Port numbers 1–50 with transparent icon / label windows
Cable Management	Rear cable support bar included

6. MECHANICAL & ENVIRONMENTAL

Mounting	19-inch (482.6 mm) rack mount
Height	[1U — 44.45 mm / 2U — 88.9 mm] (select)
Width (over ears)	482.6 mm
Jack Mating Cycles (min.)	[750] cycles
IDC Termination Cycles (min.)	[200] re-terminations
Operating Temperature	[-10 °C to +60 °C]
Storage Temperature	[-40 °C to +70 °C]
Relative Humidity	[10 % to 90 %, non-condensing]

7. ELECTRICAL CHARACTERISTICS

Contact Resistance (jack)	[≤ 20 mΩ]
Insulation Resistance	[≥ 500 MΩ]
Dielectric Withstand (1 min)	[1000 V AC]
Current Rating per Contact	[1.5 A]
Max. Operating Voltage	[72 V]

8. TRANSMISSION PERFORMANCE

Frequency (MHz)	Insertion Loss — max (dB)	NEXT — min (dB)
1	0.1	58
4	0.2	46
8	0.3	40
10	0.3	38
16	0.4	34

9. INSTALLATION & HANDLING GUIDELINES

- Mount the panel in the rack using four screws and cage nuts; leave clearance for cable bend radius at the rear.

- Terminate cables with a 110 punch-down tool following the colour code printed on the panel (T568A / T568B).
- Untwist pairs by no more than 13 mm (0.5 in) at the termination point.
- Secure cables to the rear cable management bar with ties; do not over-tighten or crush the cable.
- Label each port and record it in the cable schedule; test every link after termination.