

Cat6 Flat Patch Cord

Red Cat6 Flat Patch Cord 50m — Slim Gigabit Ethernet Cable, Factory Direct OEM

**Key specifications**

Category	Cat6 (Category 6), UTP unshielded, flat/ribbon type
Performance Standard	ANSI/TIA-568.2-D Cat6, ISO/IEC 11801 Class E, EN 50173-1
Bandwidth	Up to 250 MHz
Data Rate	10/100/1000 Mbps Gigabit Ethernet up to 50-100 m

Product summary

- **Category:** Cat6 UTP flat (ribbon) patch cord, red jacket, unshielded
- **Length (this SKU):** 50 m (164 ft); available in 0.5 m – 50 m range
- **Performance:** 1 Gbps Gigabit Ethernet up to 100 m, 250 MHz bandwidth, Cat6 certified
- **Conductor:** 32 AWG stranded bare copper, parallel flat ribbon layout (no cross-web, ultra-slim ~1.5 mm profile)
- **Connectors:** 8P8C RJ45 plugs both ends, 3μ"-50μ" gold-plated phosphor bronze contacts
- **Boots:** Red-molded snagless PVC strain-relief boots, color-matched to jacket
- **Wiring:** TIA/EIA-568B straight-through (568A / crossover on OEM request)
- **Jacket:** Red flat PVC, ultra-slim profile (~1.5 mm × 6.0 mm), runs under carpets / rugs / door gaps
- **Testing:** 100% Fluke DSX-8000 tested; coiled with white twist ties per the photo
- **Applications:** Under-carpet runs, baseboard routing, wall-mount TV, indoor long-distance LAN, IP camera NVR, router-to-PC
- **Certifications:** RoHS 2.0, REACH, ISO/IEC 11801, ANSI/TIA-568-C.2
- **MOQ:** 100 pcs stock; 500 pcs OEM (custom length, jacket color, printing, packaging)

Product page:<https://www.cnplugs.com/product/cat6-flat-patch-cord-red-50m/>**Category:** Cat6 Flat Patch Cord

Contact & technical support

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Product details

Red Cat6 Flat Ethernet Patch Cord 50m — Slim Ribbon Cable for Discreet Long-Distance Runs

Running an Ethernet cable 50 meters (164 feet) across a room, down a hallway, or between two buildings without drilling, without surface-mount raceway, and without the visible bulge of a round cable is exactly what our red Cat6 flat patch cord is designed for. Manufactured by PROUNTA — a specialized [RJ45 connector and patch cord factory](#) in Dongguan — this flat Cat6 UTP cable uses a parallel ribbon geometry with a profile of roughly 1.5 mm × 6.0 mm (about the thickness of two credit cards), allowing it to slip under carpets, rugs, door thresholds, and along baseboards with near-zero visibility. It terminates in red snagless-molded 8P8C RJ45 plugs with gold-plated contacts, pre-tested and ready to deploy right out of the bag.

The 50 m length is our longest stock SKU in the flat Cat6 family, sized for whole-home or whole-office runs: from a main router in a utility closet to a distant living-room game console, from an NVR in a server rack to a farthest IP camera, or from a basement network switch to an upstairs home office. The red jacket makes the cable easy to identify on site when multiple cable types are run together, and contrasts well against light-colored walls and floors when exposed.

Why Choose a Flat Cat6 Cable?

Round Cat6 cables are built around a central plastic cross-web separator that holds the four twisted pairs in precise geometry to deliver 250 MHz crosstalk performance — but that cross-web creates a stiff, bulky round cable roughly 6 mm in diameter, impossible to hide under a carpet or behind a baseboard without a visible bump. Flat Cat6 cables take a different approach: the eight conductors run side-by-side in a thin ribbon, eliminating the cross-web and reducing the cable's thickness to around 1.5 mm. This slim [patch cable](#) profile solves several installation problems that round cables cannot:

- **Runs under carpets and rugs:** The 1.5 mm profile disappears completely under low-pile carpet without creating a trip hazard or a visible lump underfoot.
- **Behind furniture and wall-mounted TVs:** Routes easily between a wall and a mounted TV, bookshelf, or desk without leaving a gap.
- **Under door thresholds and through window gaps:** Passes through gaps where a 6 mm round cable would be pinched or prevent a door from closing.
- **Along white baseboards and crown molding:** Flat red (or white) cable tucks into the corner between baseboard and floor and can be painted over if needed.
- **Temporary and tradeshow networks:** Flat cable lies flat on the floor, reducing trip risk in high-foot-traffic temporary installs.

Note: Because flat Cat6 does not maintain the tightly controlled twisted-pair geometry of round Cat6, it is certified for Gigabit speeds over typical residential and SMB runs up to 50–100 m, but is not recommended for 10Gbps short-reach or data-center ToR applications — for those, use our round [Cat6A and Cat8 shielded patch cords](#). For everyday Gigabit runs where cable invisibility matters, flat Cat6 is the optimal balance.

Typical Applications for the 50 m Red Flat Cat6

- **Whole-home & apartment long runs:** Router in hallway to a living-room gaming PC or home office 40–50 m away.
- **IP security camera installations:** NVR in a closet to a PoE camera at the far end of a warehouse or retail floor (we recommend 15µ"+ gold plating for PoE runs of this length).
- **Small office / classroom networks:** Desk-to-switch runs across open offices where drilling through walls is not an option.
- **Under-carpet office cabling:** Temporary or semi-permanent network drops in rented commercial spaces where modification is prohibited.
- **Retail POS and hospitality:** discreet cable runs from back-office router to front-of-house POS terminal or guest Wi-Fi access point.
- **Event and trade-show networks:** Red cables make active data links instantly identifiable on a crowded floor alongside power leads.

Build Quality — What Makes PROUNTA Flat Cat6 Cords Reliable

- **Bare copper, not CCA:** Copper-clad aluminum conductors have roughly 40% higher DC resistance than pure copper and run hot under PoE load, especially at 50 m lengths. We use 32 AWG stranded bare copper throughout.
- **In-house RJ45 plugs:** The connectors are [Cat6-rated plugs from our own factory](#), with gold-plated phosphor bronze contacts molded directly onto the flat cable jacket — no slip-on boots that slide off.
- **Proper load bar alignment:** Each conductor is seated in a polycarbonate load bar inside the plug, preventing crossed pairs and ensuring consistent crosstalk performance on flat cable (which is more alignment-sensitive than round).
- **Injection-molded strain relief:** Red PVC boots are molded directly onto the cable entry point, so the cable cannot separate from the plug under repeated bending at the termination point — the most common failure on cheap flat cables.
- **100% Fluke tested:** Every 50 m cord is tested end-to-end for wire map, NEXT, return loss and insertion loss before coiling and packaging.
- **Color consistency:** Red jacket and red boot use a matched Pantone across batches, so reorders always match existing installs.

Q: Is flat Cat6 as good as round Cat6?

A: For Gigabit (1 Gbps) runs up to 50–100 m, a properly built flat Cat6 cord delivers identical throughput to round Cat6 in real-world use. The difference is in extreme crosstalk headroom at high frequency: round Cat6 (and Cat6A) are engineered for 10Gbps short-reach and data center use, where the cross-web separator matters. Flat Cat6 is optimized for low profile and discreet routing at Gigabit speeds. For a 50 m run from a router to a PC, gaming console, or IP camera, flat Cat6 is the more practical choice.

Q: Can flat Cat6 be run under carpet?

A: Yes. That is one of the main reasons customers buy it. The 1.5 mm thickness fits under most carpets and rugs without creating a bump. We do recommend avoiding heavy furniture legs (castors, couch feet) pressing directly on the cable — use a cable protector if needed.

Q: Is 50 m the maximum length for Cat6?

A: The TIA/EIA-568 standard defines the maximum [Ethernet over twisted pair](#) channel length at 100 meters (including patch cords and horizontal wiring) for 1000BASE-T. A 50 m patch cord leaves 50 m of headroom for in-wall solid cable on each side in a structured installation. For a pure point-to-point patch (router direct to device) many users run 50 m and even 75 m flat Cat6 without issue at Gigabit speed.

Q: Can the cable support PoE at 50 m?

A: Yes. With standard 3μ"-6μ" gold plating it supports PoE (15.4 W) and PoE+ (30 W) devices. For PoE++ (60–90 W) devices such as PTZ cameras or high-power Wi-Fi 6/7 APs at 50 m length, we recommend upgrading to 15μ" or 30μ" gold plating to keep contact resistance low over the service life.

Q: Is the cable available in other colors and lengths?

A: Yes. Stock colors include white, black, blue, red, yellow and green. Standard lengths run 0.5 m through 30 m in 0.5 m increments, with 40 m and 50 m as long-length SKUs. Custom lengths up to 100 m are available on OEM orders.

Q: T568A or T568B? Can I get crossover?

A: Stock cords are T568B straight-through, which is the default worldwide. T568A straight-through and old-style crossover wiring are available at no extra cost on OEM orders of 500 pcs or more.

Q: Are free samples available?

A: Yes. We provide free samples of stock flat Cat6 cords to qualified business accounts; the recipient covers international shipping. Request via our [sample request form](#).

Bulk Orders, Project Bids & OEM Enquiries

PROUNTA supplies flat and round Cat5e–Cat8 patch cords directly from our Dongguan factory to distributors, cabling contractors, online retailers, and equipment OEMs worldwide. All of our connectors are manufactured in-house — we do not purchase commodity RJ45 plugs from third parties — which gives us full control over contact plating, plastic quality, and termination consistency across very large production runs. We ship in mixed 20 ft / 40 ft containers, by air courier for sample and small-batch orders, and can combine patch cords with our full line of [RJ45 modular plugs](#) in a single shipment.

Technical specifications

Specification	Published value
Category	Cat6 (Category 6), UTP unshielded, flat/ribbon type
Performance Standard	ANSI/TIA-568.2-D Cat6, ISO/IEC 11801 Class E, EN 50173-1
Bandwidth	Up to 250 MHz
Data Rate	10/100/1000 Mbps Gigabit Ethernet up to 50-100 m
Conductor	32 AWG 7-strand bare copper conductors, no CCA
Insulation	Polyethylene (PE), color-coded per T568B
Cable Geometry	8 conductors in parallel flat ribbon (no twisted pair cross separator; slim-profile)
Cable Profile	~1.5 mm thickness × ~6.0 mm width (flat)
Jacket Material	Flexible red PVC
Jacket Color (this SKU)	Red; white, black, blue, yellow, green, gray available
Connector	8P8C RJ45 male plug, transparent PC housing, both ends
Contact Plating	3μ", 6μ", 15μ", 30μ" or 50μ" gold over 50μ" nickel on phosphor bronze
Boot	Injection-molded red snagless PVC strain-relief boot, color-matched
Wiring Scheme	TIA/EIA-568B straight-through (568A / crossover available OEM)
Length (this SKU)	50 m (164 ft); also stocked 0.5 m – 30 m; 40 m, 50 m, custom cut to order
PoE Support	IEEE 802.3af/at (PoE/PoE+); 15μ"+ gold recommended for longer PoE runs
Minimum Bend Radius	Approx. 8 mm (flat cable bends edgewise very tightly)
Temperature Range	Operating: -10 °C to +60 °C; Storage: -20 °C to +70 °C
Certifications	RoHS 2.0, REACH, ISO 9001; ETL channel performance available on OEM
Testing	100% Fluke DSX-8000 — wire map, length, NEXT, RL, IL; coiled and secured with white twist ties
Packaging	Each cord individually coiled and tie-wrapped; bulk polybag 50 pcs/carton; retail blister OEM