

Network patch panel technical parameters



AI Overview

Patch panels are passive network devices that organize and terminate cabling, with technical parameters defined by port type, cabling category, shielding, termination method, and rack compatibility.

Key Technical Parameters

1. Cabling Category and Bandwidth Patch panels are rated according to Ethernet cabling standards, such as Cat 5e, Cat 6, and Cat 6A, which determine the maximum supported data rates and frequency:

- Cat 5e: Up to 1 Gbps, 100 MHz
- Cat 6: Up to 1 Gbps (10 Gbps for short distances), 250 MHz
- Cat 6A: Up to 10 Gbps, 500 MHz Using a patch panel rated lower than the cable (e.g., Cat 6 cable with Cat 5e panel) will downgrade network performance and may cause signal errors . 2. Port Configuration Patch panels typically come in 6, 12, 24, or 48 ports, with RJ45 connectors for Ethernet. Fiber optic panels support LC, SC, or ST connectors. Port count should include 20–30% extra capacity for future expansion . 3.

Termination Method

- IDC (Insulation Displacement Contact) punch-down is standard for copper panels.
- Follow T568B wiring standard for horizontal cabling termination.
- Limit untwisted pair length to less than 0.5 inches (1.27 cm) to reduce crosstalk . 4. Shielding and EMI Protection
- UTP (Unshielded Twisted Pair) panels are suitable for low-interference environmen...

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1. GENERAL CHARACTERISTICS The patch panel is 19" and equipped with 4 units (24 x Cat. 6A RJ 45 sockets).

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Patch panel

A patch panel is a device or unit featuring a number of jacks, usually of the same or similar type, for the use of connecting and

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Contact Us

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