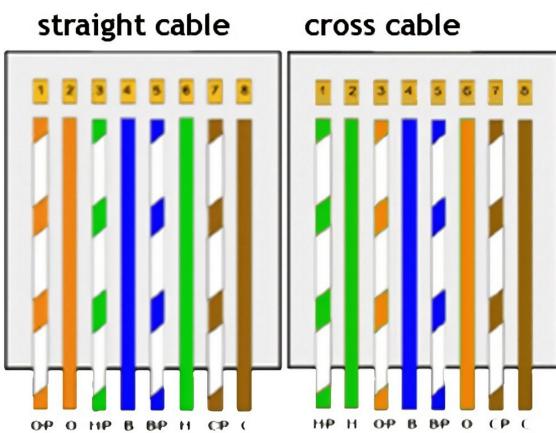


## ■ Straight-Through Ethernet Cable

- **Purpose:** Connects **different types of devices** (PC ↔ Switch, Switch ↔ Router).
- **Pinout:**
  - Both ends terminated the **same way** (T568A–T568A or T568B–T568B).
  - Wire colors/pins match exactly on both connectors.
- **Use in practice:**
  - Most LAN patch cables in offices.
  - Safe default when connecting end devices to network devices.



## ■ Crossover Ethernet Cable

- **Purpose:** Connects **similar types of devices** (PC ↔ PC, Switch ↔ Switch, Router ↔ Router — older equipment).
- **Pinout:**
  - One end T568A, other end T568B (the transmit & receive pairs are swapped).
- **Use in practice:**
  - Directly connecting two computers without a switch.
  - Linking two switches or routers back-to-back without an uplink port.

### Easy Rule

#### Devices

Different devices (PC–Switch / Switch–Router)

#### Cable Type

Straight-Through

Same devices (PC–PC / Switch–Switch / Router–Router) Crossover

(Modern switches/routers with **Auto-MDIX** detect and adjust automatically, so straight-through

*works in most cases.)*