

② Different types of Networks Cables

Aim

Study of different types of Network cables.

Types: → (1) Unshielded Twisted pair
(2) Shielded Twisted pair
(3) Coaxial cable
(4) Fiber optic cable

Cable type	Category	Maximum Data Transmission	Advantages/ Disadv.	Application/ Use
UTP	Category 3 Category 5 Category 5e	10 Gbps upto 100 Mbps 10 Gbps	Adv: Cheaper, easy to install Disadv: prone to EMI	10 Base-T ethernet Fast ethernet, Gigabit ethernet "
STP	b, 6a	10 Gbps	Adv: Shielded, faster, noise suc. disadv: Expensive, complex installation	Gigabit, 10G Ethernet; used in data centres
SSTP	7	10 Gbps		Gigabit, 10G ethernet
Coaxial Cable	RG-6 RG-59 RG-11	10-100 Mbps	Adv: ↑ BW, immune to interference Disadv: loss, size, distance	Speed is 100M Television networks, ↑ speed internet conn.
Fibre Optics Cable	Single mode Multi mode	100 Gbps	Adv: ↑ speed, ↑ BW, security disadv: expensive, skilled installers	Maximum distance is 100m