

Exp 2

Study of Network cable

Date :

AIM:

Study of different types of network cables.
Different type of cables used in networking

are:

- 1) Unshielded Twisted Pair (UTP) cable
- 2) Shielded Twisted Pair (STP) cable
- 3) Coaxial cable
- 4) Fibre optic cable

Cable Type	Category	Maximum data transmission	Advantages / Disadvantages	Application / Use	Page
UTP	category 3 category 5 category 5e	10 bps Up to 100 Mbps 1 Gbps	<u>Advantages</u> <ul style="list-style-type: none"> * cheaper in cost * Easy to install as they have a smaller overall diameter <u>Disadvantages</u> <ul style="list-style-type: none"> * More prone to EMI * Shielded * Faster than UTP * Expensive * Greater Installation * Higher bandwidth * Lower bandwidth * Costly * Space is bulky * High speed 	10 Base-T Ethernet Fast Ethernet Gigabit Ethernet	
STP	category 6 6a	10 Gbps		Gigabit Ethernet 10 Gb Ethernet (SSTP)	
Coaxial Cable	RG-6 RG-59 RG-11	10-100 Mbps		Gigabit Ethernet 10 Gb Ethernet	
Fibre optic cable	Single Mode	100 Gbps		Speed of signal 1's 500K television network	

0, B, G, R

Color arrangement: W/O, O, W/G, B, W/B, G, W/B, B

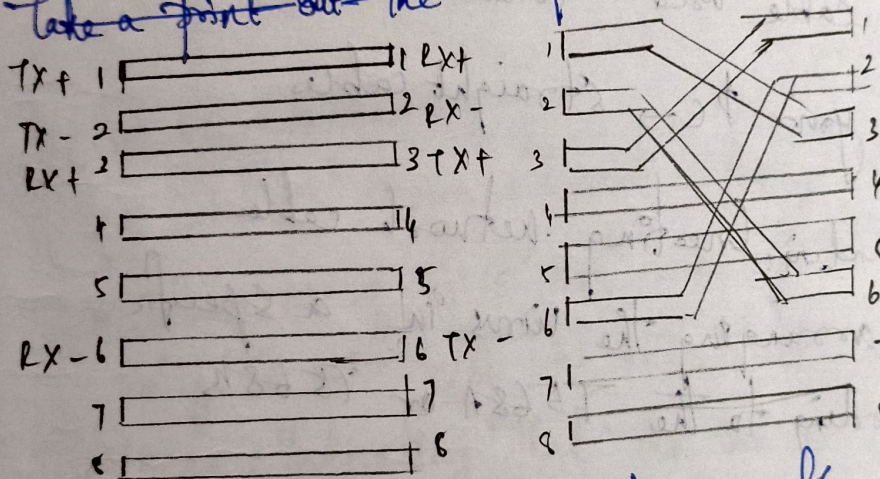
b) Make your own ethernet cross over cable

Straight cable

Tools and parts needed

- Ethernet cabling, CAT5e is certified for gigabit
- Two RJ45 plugs
- Optional two plug shields

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Straight-through
Cable

X-over cable

Student Observation

1. A straight cable has the same wiring order on both ends; typically following the T568A or T568B standard. It is used to connect different type of devices.
2. Type of wire/cable used to connect
2 PCs \rightarrow Cross Cable
3. Type of cable used to connect a router/switch to your PC \rightarrow Straight cable
4. Understanding, Creating network cables involves arranging the wires in a specific order according to the T568A or T568B standard.

RESULT:

Thus the different network cables have been studied

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