

Ex - No: 2

24/7/2024

Page No: \_\_\_\_\_

Date: \_\_\_\_\_

Aim: Study of different types of Network Cables.

a) Understand different type of network cables

Cable type	Category	Maximum Data Transmission	Advantage / Disadvantage	Application / Use
UTP	Category 3	10 bps	Advantage • Cheaper in cost	10 Base - T Ethernet
	Category 3	Up to 100 Mbps	• Easy to install as they have a smaller overall diameter. Disadvantage	Fast Ethernet Gigabit Ethernet
	Category 5e	1 Gbps	• More prone to (EMI) Electromagnetic Interference noise.	Fast Ethernet Gigabit Ethernet
STP	Category 6 6a	10 Gbps	Advantages • Shielded • Faster than UTP • Less susceptible to noise & interference Disadvantage • Expensive • Greater installation effort	Gigabit Ethernet 10G Ethernet (55m) Widely used in data centre
SSTP	Category 7	10 Gbps		Gigabit Ethernet 10G (60m)



Coaxial Cable	RG-6 RG-59 RG-11	10-100 Mbps	<b>Advantage :</b> <ul style="list-style-type: none"> <li>• High bandwidth</li> <li>• Immune to interference</li> <li>• Low loss</li> <li>• Low bandwidth</li> <li>• Versatile</li> </ul>	<b>Speed of Signal</b> 500m Television network High speed connecting
Fibre optics Cable	Single mode Multi mode	100 Gbps	<b>Advantage :</b> <ul style="list-style-type: none"> <li>• High speed</li> <li>• High bandwidth</li> <li>• Long distance</li> </ul> <b>Disadvantage</b> <ul style="list-style-type: none"> <li>• Expensive</li> <li>• Requires skilled installer.</li> </ul>	<b>Maximum distance of fibre optics Cable is around 100 m</b>

**Result :**

Thus, the study of different types of network cable was done & observed successfully.

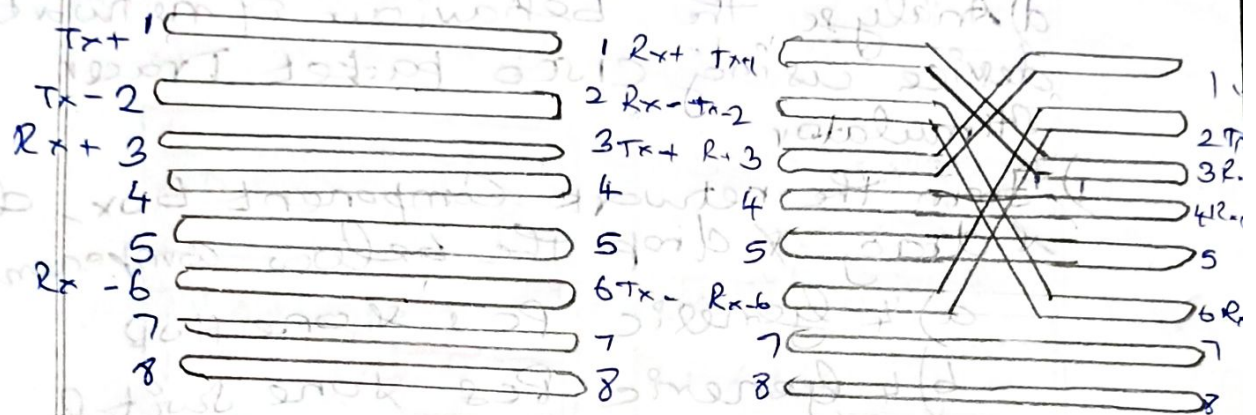


Make your own ethernet cross over cable.

Page No: 18/18

Date:

b) Make your own Ethernet Cross-over cable / Straight cable



Difference between crossover cable and straight cable

Tools and Parts needed:

- Ethernet cabling: CAT5E is certified for Gigabit support, but CAT5 cabling works as well, just over shorter distances
- A crimping. This is an all-in-one networking tool shaped to push down the pins in the plug and strip and cut the shielding off the cable
- Two RJ45 plugs
- optional two plug shields.

Result:

Thus the program is executed and output is verified.

18/11/24