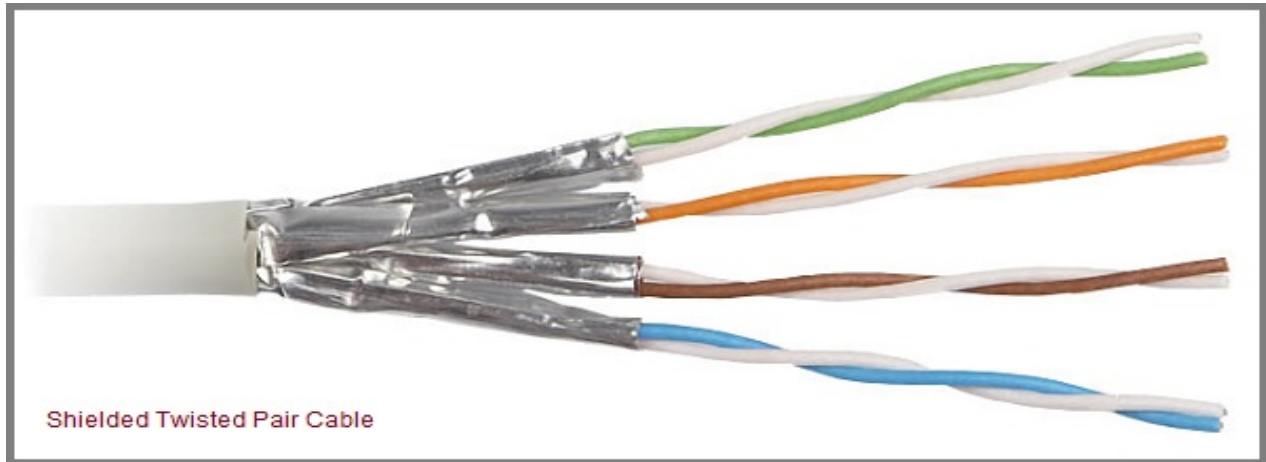


## **Shielded Twisted Pair Cable:**

Shielded twisted pair (STP) cable was originally designed by IBM. This cable has a metal foil or braided-mesh covering which encases each pair of insulated conductors. Electromagnetic noise penetration is prevented by metal casing. Shielding also eliminates crosstalk.

It has same attenuation as unshielded twisted pair. It is more expensive than coaxial and unshielded twisted pair.



## **Advantages of Shielded Twisted Pair Cable:**

- Easy to install
- Performance is adequate
- Can be used for Analog or Digital transmission
- Increases the signaling rate
- Higher capacity than unshielded twisted pair
- Eliminates crosstalk

## **Disadvantages of Shielded Twisted Pair Cable**

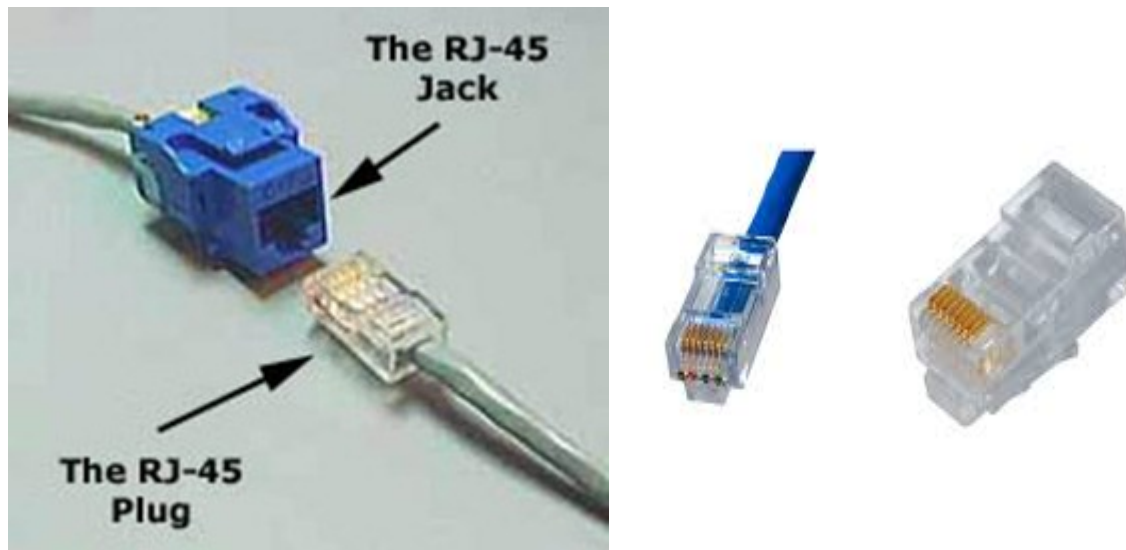
- Difficult to manufacture
- Heavy

## **Twisted Pair Cable connectors:**

The standard connector for unshielded twisted pair cabling is an RJ-45 connector. This is a plastic connector that looks like a large telephone-style connector. A slot allows the RJ-45 to be inserted only one way. RJ stands for Registered Jack. An 8-pin/8-position plug or jack is commonly used to connect computers onto Ethernet-based local area networks (LAN).

RJ45 connectors are used for CAT6 cables and CAT5e cables. These connectors for twisted-pair Ethernet cables are similar in appearance to a standard telephone cord connector. They are wider, however, because they have eight conductors compared to only four conductors on a telephone jack.

To install these types of wiring connectors, a stripping tool is used to expose the twisted pairs of wires from the cable, which are then positioned into the appropriate slots on the terminal plug. The connector is then crimped to the cable using a crimping tool.



## **Exercise:**

1. What is shielded twisted pair cable? Explain with diagram.
2. What types of connectors are used in twisted pair cables?