

# A+ Core 1 and Core 2 CertMaster Perform 15.0

## 5.3.1 Unshielded Twisted Pair

The most popular type of **network cable** is of a **copper** wire construction called **unshielded twisted pair** (UTP). A UTP cable consists of four copper conductor wire pairs. Each pair of insulated conductors is twisted at a different rate from the other pairs, which reduces interference. The electrical signals sent over each pair are balanced. This means that each wire carries an equal but opposite signal to its pair. This is another factor helping to identify the signal more strongly against any source of interference. However, the electrical signaling method is still only reliable over limited range. The signal suffers from attenuation, meaning that it loses strength over long ranges. Most UTP cable segments have a maximum recommended distance of 100 m (328 feet).

### UTP cable

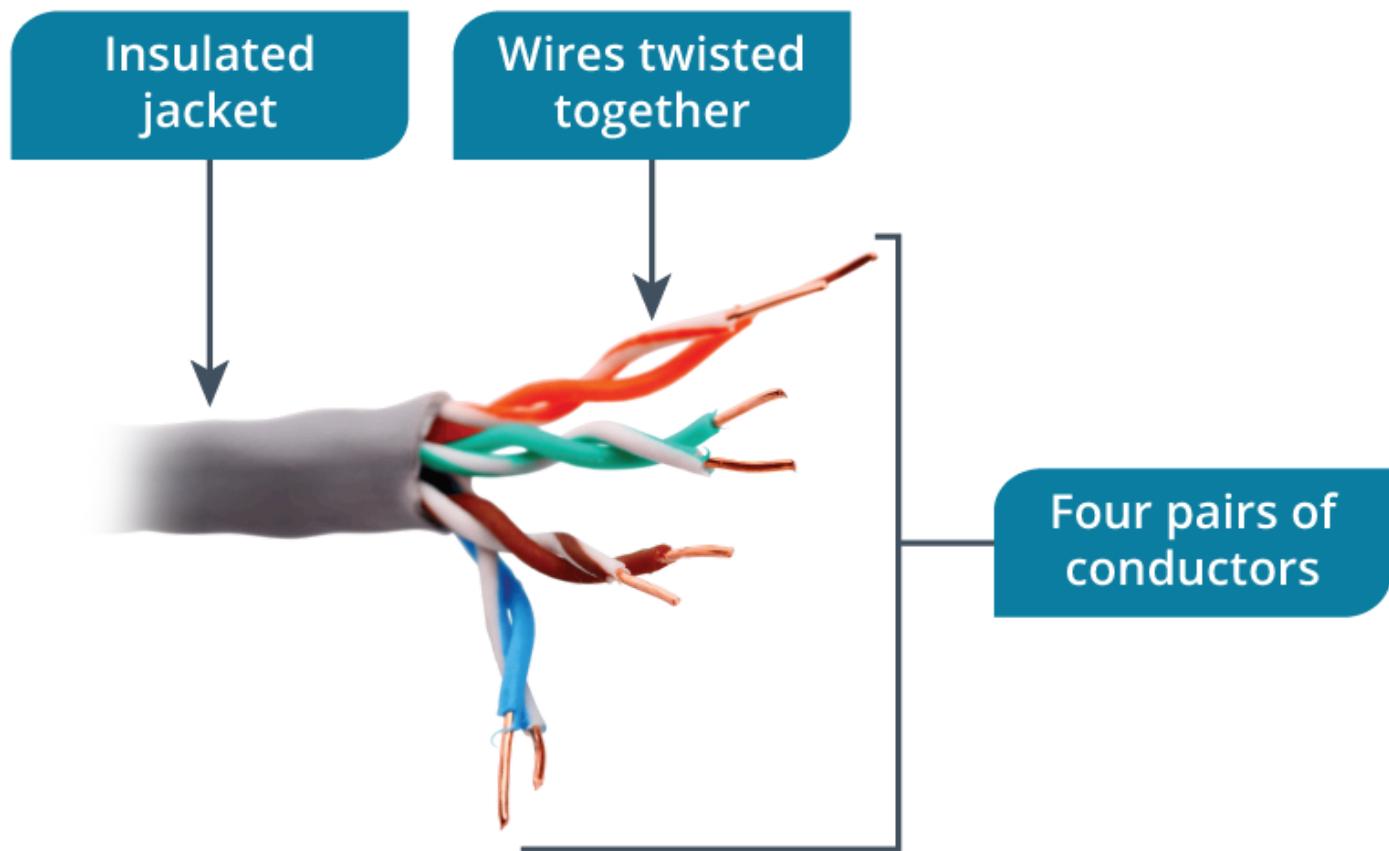


Image © 123RF.com.

Copyright © CompTIA, Inc. All rights reserved.