

## Glossary and Technical Information

**Unshielded RJ-45** - Short for Registered Jack-45, typically an eight-wire connector used to connect devices transmitting data over local-area networks (LAN), especially Ethernets. RJ-45 connectors are similar to RJ-11 connectors used for connecting telephone equipment, but they are wider.

Style A

**Shielded RJ-45 Jack** - A connector with a metallic shield that covers most of the exposed housing. The shield is used to block the transmission or reception of external electrical noise.

Style B

**Multiport RJ-45 Jack** - A series of RJ-45 jacks molded horizontally in 2-8 ports in either a shielded or unshielded version. They may also be stacked vertically to produce a double row of jacks.

Style C (Unshielded), Style D (Shielded)

**1394 Connector** - Used to support the IEEE 1394 standard, this connector is used for connecting high speed computer peripherals such as camcorders and other mass storage devices.

Style E

**Filtered RJ-45 Jacks** - These jacks are used to match impedance and minimize EMI radiation when used in 10/100 Base-T-LANs (Local Area Networks) with UTP Cat 5 cabling.

Style F

**USB Jack** - Short for Universal Serial Bus, a new external bus standard that supports data transfer rates of 12 Mbps (12 million bits per second). A single USB port can be used to connect up to 127 peripheral devices, such as mice, modems and keyboards. USB also supports Plug-and-Play installation and hot plugging. The USB is available in a USB "A" or USB "B" style. The "A" style is a horizontal 4 position connector and the "B" style is a square jack with two contacts on top and bottom.

Style G

**Industrial** - A jack which resides within an enclosure so as to prevent penetration from solids and liquids. These include, but are not limited to, fingers, dust, and water. The degree of protection is defined by the enclosure rating as per the 1976 IEC publication, classification of degrees of protection provided by enclosures.

Style I

**Keystone Jack** - These jacks can be panel, plate or equipment mounted and are available in UTP (Unshielded Twisted Pairs) or STP (Shielded Twisted Pairs) versions. The wire used is connected via a built in "punch down" block (110 type).

Style K

**LED RJ-45 Jack** - This type of RJ-45 jack (typically a shielded jack) uses a pair of LEDs to show operating conditions of the device using the RJ-45. Electronics from the device are used to power the LEDs and to provide signals to them showing the operating conditions. Some LED jacks use light pipes to direct the light from the LEDs to the front of the RJ-Jack. By using this techniques, the noise that is normally generated by the LEDs is less likely to travel over the long lead of the LED and transmit to nearby devices.

Style L

**Surface Mount RJ-45** - This type of RJ-45 is used in SMT or Reflow soldering and is typically unshielded.

**RJ-45 Plugs** - The RJ-45 plug is used on the cable end to connect the cable to the RJ-45 jack. Plugs are available in Category 5 shielded or unshielded versions.

**Cat-3 RJ-45 Jack** - Category 3 cabling supports frequencies up to 16 MHz and speeds up to 10 Mbps. It has the capability to support low speed data applications, performing to the acceptable minimum for 100 ohm cabling systems; however it's now primarily used for telephone wiring.

**Cat-5 RJ-45 Jack** - Category 5 describes network cabling that consists of four twisted pairs of copper wire terminated with RJ-45 connectors. Cat-5 cabling supports frequencies up to 100 MHz and speeds up to 100 Mbps. It can be used for ATM, token ring, 100Base-T, 10Base-T and 10Base-T networking. Cat-5 is based on the TIA/EIA 568 Commercial Building Telecommunications Wiring Standard developed by the Electronics Industries Association as requested by the Computer Communications Industry Association in 1985.