**What is the different among F/UTP,S/UTP,SF/UTP,S/FTP,F/FTP,U/FTP and U/UTP cables?**



Like a shield used during battle, shielding in cables acts as a barrier that protects the cable from external threats, such as electrical interference (EMI). It also prevents cable signals from interfering with surrounding cables and equipment.

While not all environments demand such a robust cable, shielding is becoming more common. When it first became available, shielded cables were used in areas such as factory floors, areas with high concentrations of electrical equipment, and secure communications applications. Today, shielded cable is prevalent in many types of applications, including government, healthcare and even education.

There are many acronyms used to describe shielded cables, from STP to F/FTP; while many are often used synonymously, nearly all of them have different meanings. This blog provides basic information about each style, as defined by ISO/IEC 11801:200, to clear up the confusion.

**F/UTP (FTP)**

An overall foil shield (F) with unscreened twisted pairs (UTP). This cable is very much like common UTP cables, with the addition of foil underneath the main cable jacket. Another common name for this cable is FTP. F/UTP cables are common in 10GBaseT applications.

**S/UTP**

An overall braid screen (S) with unscreened twisted pairs (UTP). This is occasionally referred to as an STP cable, but beware: There are other shielded cables among this list that may also claim this term. To be sure, always check to see whether your cable will have any kind of overall barrier, and whether the individual pairs have their own shield.

**SF/UTP**

Both an overall braid screen (S) and foil shield (F) with unscreened twisted pairs (UTP). This cable is also occasionally referred to as an STP cable. Cables with an overall braided screen are very effective at protecting EMI from entering or exiting the cable.

**S/FTP**

An overall braid screen (S) with foil screened twisted pairs (FTP). The “shield” underneath the jacket is a braid, and each individual pair is surrounded by its own foil barrier. The purpose of the additional foil on individual pairs is to limit the amount of crosstalk between them.

**SF/FTP**

An overall braid screen (S) and an overall foil shield(F) with foil screened twisted pairs (FTP). The “shield” underneath the jacket is a braid and then a foil, and each individual pair is surrounded by its own foil barrier.

**F/FTP**

An overall foil shield (F) with foil screened twisted pairs (FTP). Similar to F/UTP cables, these shielded cables are commonly used in 10GBaseT applications.

**U/FTP**

No overall shielding or braid (U) with foil screened twisted pairs (FTP). This type of shielded cable is commonly used in 10GBaseT applications as well.

**U/UTP**

Notice anything wrong here? You caught us! This cable is not shielded at all, and is the common unshielded cable most often referred to as UTP cable.

Common industry abbreviations for cable construction：

| **Industry acronyms** | **ISO/IEC 11801 name** | **Cable shielding** | **Pair shielding** |
| --- | --- | --- | --- |
| UTP | U/UTP | none | none |
| STP, ScTP, PiMF | U/FTP | none | foil |
| FTP, STP, ScTP | F/UTP | foil | none |
| STP, ScTP | S/UTP | braiding | none |
| SFTP, S-FTP, STP | SF/UTP | braiding, foil | none |
| FFTP | F/FTP | foil | foil |
| SSTP, SFTP, STP PiMF | S/FTP | braiding | foil |
| SSTP, SFTP | SF/FTP | braiding, foil | foil |

The code before the slash designates the shielding for the cable itself, while the code after the slash determines the shielding for the individual pairs:

U = unshielded

F = foil shielding

S = braided shielding (outer layer only)

TP = twisted pair

TQ = twisted pair, individual shielding in quads

Now You Know!

Now that you’ve read through these shielded cable types, you can refer to this handy guide to keep them straight. But it can still be confusing to wade through acronyms like STP, F/FTP, and FTP when selecting the right cable for your project.

If you have any questions, or are looking for a specific shielded cable, H&T can help. Our global facilities produce a variety of shielded cable styles, and our experts can help you find what you need. Email to: sales@htopto.com