Counterfeit Cable: More Widespread Than You Think

By Bill Slater, International Marketing Manager, Leviton Network Solutions

The shady-looking character in a trench coat on a street corner leans toward you and whispers, “Psst ... buddy, wanna buy some cable?” While this image may be more stereotypical for selling fake Rolexes, counterfeit cables are a growing problem in the global marketplace for networking solutions. It is important to avoid the traps set by low-end manufacturers and sellers who present deceptive products. Counterfeit and non-compliant cable can result in a variety of risks, including costly repairs, legal issues, property damage, and even loss of life.

A 2012 independent study of offshore-manufactured cable discovered some startling results. The tests, commissioned by the Communications Cable & Connectivity Association (CCCA), sampled cables from the inventory of six distributors in North America. The six chosen brands were considered “unknown” by most buyers. The tests found that five of the six samples failed to meet minimum National Fire Protection Association (NFPA) code requirements for low flame spread and/or smoke generation. In addition, four of the five cables that failed the fire requirements also failed to meet minimum electrical performance required by Cat 5e and Cat 6 standards.

continued on pg. 2

Leviton Holds Termination Speed Record using eXtreme® Cat 6 Connectors and JackRapid™ Tool

In speed tests conducted by Leviton, installers using Leviton eXtreme Cat 6 connectors and the Fluke JackRapid Punchdown Tool consistently terminated cable in under 20 seconds. In fact, the fastest time came in at 12.21 seconds! We have yet to see any other connector and tool combination reach those times.

The eXtreme Cat 6 connectors feature Pair Separation Towers that make it easy to untwist and separate conductors, while the JackRapid tool dramatically cuts down on installation time by seating and cutting all wires at once.

You can see an example termination at leviton.com/videos: “How to Use the JackRapid Tool.”

UPCOMING EVENTS

SEPTEMBER 28 - OCTOBER 2
BICSI Fall Conference & Expo
Anaheim, CA

DECEMBER 9 - 11
National Veterans Small Business Conference
Atlanta, GA

DECEMBER 9 - 11
AFCEA TechNet Asia-Pacific
Honolulu, HI
These types of failures have huge ramifications when installed in a commercial building. So if you’re specifying, buying, or installing cable, it is important to recognize the signs of counterfeit and non-compliant cable.

**Counterfeit Cable**

Brand names are important and valued assets of a corporation, and they communicate to the consumer a level of quality and expected performance standards. When a low-cost, low-quality manufacturer tries to use a respected manufacturer’s brand, they are stealing from both the consumer and the name-brand manufacturer. We call those goods “counterfeit.” But a variety of other dishonest or deceptive practices have been detected in the marketplace.

A cable might be properly identified as coming from a given manufacturer, but it can be falsely labeled as complying with industry standards and being certified (e.g., using UL or ETL marks), giving a deceptive claim as to the cable’s review by a third-party testing laboratory. These cables are described as “bearing counterfeit certification,” and put networks at risk by deceiving an end user as to the verified properties of the cable. Counterfeit cable may also include misleading or false claims, such as being “plenum rated.” In 2010, Underwriters Laboratories (UL) fought back against counterfeiters by requiring holographic certification labels on cable reels and boxes.

**Non-Compliant Cable**

Some cables or patch cords may not be falsely labeled, but could be deceiving nonetheless. If the product does not state that a given standard is adhered to, but the seller claims or implies that it does, this can cause additional problems for the end user. Cables sold for abnormally low prices or by distributors without a track record with a given brand are suspect. The CCCA recommends that the best way for end users to protect themselves is to specify and then validate their cable is from a well-known supplier with a well-recognized brand. Another CCCA test found an 85 percent failure rate for Cat 6 patch cords with unknown brand names, and a zero percent failure rate from reputable brands.

**Ways to Recognize Counterfeit/Non-compliant Cables**

1. Very low price, well below market norms
2. Low performance materials substituted for jacket and insulation
3. Poor printing and typographical errors
4. Lighter weight: boxes of cable with copper-clad aluminum weigh considerably less than solid copper cable
5. Private-labeled, unfamiliar brands from offshore manufacturers
6. Supplied only through website or local storefront distributors
7. No information on factory location or country of origin
8. No spec sheet available
9. Use the CCCA CableCheck mobile app or go to cccassoc.org for help

“If the price seems too good to be true, it probably is.”

**Copper-Clad Aluminum**

A particularly dangerous type of non-compliant cable is Copper-Clad Aluminum (CCA). This cable is sold at very low prices since a large percentage of the metal is aluminum instead of copper. The problem is the performance degrades significantly with CCA and therefore does not comply with industry standards, including UL and TIA. The cable can become brittle and connections become increasingly unreliable over time. But sellers of CCA cables are relying on the attractiveness of the low price to dupe buyers into a path they will later regret.

The bottom line: if the price seems too good to be true, it probably is. Leviton joins with the many other members of the CCCA in committing to provide quality solutions. We encourage buyers to be careful and buy from reliable brands and distributors to assure long-term reliability of their networks. The CCCA offers a free app to help identify non-compliant and counterfeit data cable. Visit www.cccassoc.org.
More vendors are offering 42U racks to 48U and 51U racks and data centers are taking note. These taller racks currently make up 10% of the market, but that number is expected to grow to 20%, according to analyst firm TechNavio. The growth in taller racks is a result of data center managers consolidating facilities amidst rising property prices. Standard 42U racks currently make up 60% of the market.

This summer, Leviton made a donation to the ALS Association. The donation followed Ice Bucket Challenges taken by Leviton staff. Every day we are seeing additional photos and videos of Leviton employees, both nationally and globally, accepting and executing the challenge. Numerous individual contributions as well as a corporate donation have resulted.

We are happy we could help bring awareness to this dreaded disease and hopefully contribute in some small part to finding a cure.

Fusion splicing provides a consistent, low-loss mating of fiber optic strands. While the process is fairly easy, there are a few guidelines for storing the finished assembly.

Heat shrink splice sleeves have three components: the outer shrink sleeve, the inner shrink sleeve, and the strengthening rod. As the sleeve is heated and reduced around the fiber and strengthening rod, the assembled sleeve becomes oval in shape. The strengthening rod protects the fiber from stress, but if splice sleeves are installed either fiber first or with the fiber and strengthening rod parallel to the base of the fiber holder, excess stress can be placed on the fiber holder, splice sleeve, and the fiber itself.

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Q: What are “launch cables”?

A: A launch cable is a jumper cable of known good quality that is attached to a light source on one end and a fiber under test on the other end. Once calibrated with the light source for output power, it is used for testing optical loss in a fiber optic cable. The launch cable provides an opportunity for the signal to achieve modal equilibrium, eliminating any possibility that fiber anomalies near the light source can affect the test results.