Title:
Say 'Hello' To Fiber Optic Cables And Goodbye To Copper Cables

Word Count:
480

Summary:
In today’s world copper wired cables are being replaced by fiber optic cables. Fiber optic cables are spanning the long distances between phone systems and also provide backbone for many network systems. The three types of most commonly used fiber optic cables are single mode, multi mode and plastic fiber optic cables.

Fiber optic cables provide high speed-up into gigabytes and possess a larger bandwidth that is large carrying capacity. Fiber optic cables enable signals t...

Keywords:
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Article Body:
In today’s world copper wired cables are being replaced by fiber optic cables. Fiber optic cables are spanning the long distances between phone systems and also provide backbone for many network systems. The three types of most commonly used fiber optic cables are single mode, multi mode and plastic fiber optic cables.

Fiber optic cables provide high speed-up into gigabytes and possess a larger bandwidth that is large carrying capacity. Fiber optic cables enable signals to be transmitted further without needing to be “refreshed” or strengthened. Fiber optic cables cost less to maintain and provide greater resistance to electromagnetic noise such as radios or other nearby cables.

In fiber optics light pulses are used to transmit information. The principle of 'total internal reflection' is applied in fiber optic cables. When angle of incidence exceeds the critical value light cannot get out of the glass. This simple principle is used in fiber optic cables to transmit information down fiber lines in the form of light pulses.

Fiber optic cables are usually much smaller and lighter as compared to other

cables. Fiber optic cables are also easier to handle as well as easier to install. Fiber optic cables use lesser duct space but fiber optic cables can be installed without ducts also.

Fiber optic cables offer more benefits than traditional copper wire or coaxial cables. As the basic fiber is made up of glass, fiber optic cables do not corrode. They can be buried in all kinds of soil forms and can be exposed to all kind of atmospheres as well.

Since the only carrier in fiber optic cables is light, there is no possibility of spark from a broken cable wire. Thus fiber optic cables leave no room for fire hazards as well as no room for electric shocks to the person repairing broken fiber. Fiber optic cables can prove to ideal for secure communication system as they are difficult to tap.

Fiber optic cables are made up of transparent glass or plastic fibers which allow light to be guided from one end to the other with minimal loss. Single mode fiber optic cables give a higher transmission rate and used for long distances. On the other hand multimode fiber optic cables give high bandwidth at high speeds over medium distances. Moreover, in multimode fiber optic cables, light waves are dispersed into numerous paths or modes and travel at very high speeds.

First commercial fiber optical system was installed in 1977 and since then it has increased at a rapid rate all over the globe. Today most of the telephone companies prefer to use optical fiber throughout their system as the backbone architecture and as long distance connections between city phone systems.

Fiber optic cables are used in local area network which is collective group of computers or computer systems connected to each other allowing sharing of programs, software and databases.