Fiber optic cable was laid



Overview

This was the first transatlantic cable to use, a revolution in telecommunications. The system contained two working pairs of optical fibers; a third fiber pair (in the AT&T segment only) was reserved as a span-wise spare. The signal on each optical fiber was modulated at 295.6 Mbit/s (carrying 280 Mbit/s of traffic) and fully regenerated in equipment placed in pressure housings separated by about 40 km of cable.

Key Takeaways

The first practical fiber optic cables were laid in the late 1970s, with the first transatlantic fiber optic cable installed in 1988.

Early Development

Fiber optics as a communication medium began with experimental work in the 1960s and 1970s. Narinder Kapany, often called the “father of fiber optics,” constructed the first actual fiber optic cable, demonstrating the potential for transmitting light over glass fibers. Charles Kao and George Hockham later identified that impurities in glass limited long-distance transmission, leading to the development of low-loss optical fibers by Corning Glass Works in 1970, capable of transmitting light over longer distances with minimal signal loss.

First Commercial Installations



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The first non-experimental, practical fiber optic link was installed in 1977 by General Telephone and Electronics (GTE), marking the transition from laboratory research to real-world communication networks. Throughout the late 1970s and early 1980s, fiber optic technology advanced rapidly, with improvements in cladding, single-mode operation, and high-purity glass fibers, enabling longer-distance and higher-bandwidth communication.

Submarine and Transatlantic Fiber Optic Cables

The first undersea fiber optic cable tested by AT&T Bell Labs was deployed in 1983 in the Atlantic Ocean at a depth of approximately 5 km. The first transatlantic fiber optic cable, TAT-8, was laid in 1988, providing high-capacity communication between the United States, the United Kingdom, and France. This cable represented a major milestone, replacing older coaxial and copper-based transatlantic systems and dramatically increasing data transmission rates.

Modern transatlantic cables, such as TAT-14 and Hibernia Atlantic, now use advanced fiber optics with optical amplifiers and self-healing ring topologies, capable of transmitting vast amounts of data with low latency.

Expansion and Global Networks

Following TAT-8, fiber optic networks expanded rapidly. Sprint established the first nationwide fiber-optic network in the United States in 1986, and subsequent projects like TPC-5CN (1996) and the Fiber Optic Link Around the Globe (FLAG) in 1997 extended fiber connectivity across oceans, linking continents and forming the backbone of the modern internet. Fiber optics continues to evolve, supporting high-speed internet, 5G infrastructure, and global data communication.

Article Content

Press Release International Cable Protection Commitee Ltd (ICPC)

On December 14, 1988 the first fibre-optic cable to cross an ocean came into service. This was a momentous event because the new technology opened the door to low cost transmission of

The world''s first transatlantic fiber-optic cable is being ripped up ...

Subsea Environmental Services is currently hauling TAT-8, the first fiber-optic cable ever laid across the Atlantic Ocean, off the seabed near Portugal, according to a WIRED feature...

History of the Atlantic Cable & Submarine Telegraphy

A deep-sea trial was conducted between 31 August and 12 September 1982 using CS Long Lines. The cable and repeater were laid in the North Atlantic

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The cable that wired the world

For it was in 1866 that the first fully-operational telecommunications cable was laid under the Atlantic Ocean between the UK and Newfoundland, thereby linking the so-called old and new worlds.

Underground Fiber Optic Cable Installation:

Explore the process and benefits of underground fiber optic cable installation. Learn how this infrastructure investment can elevate your internet

TDS Fiber | Best Fiber Optic Internet Provider Near Me

Fiber internet is an advanced broadband connection that utilizes thin strands of glass or plastic, known as optical fibers, to transmit data at unparalleled speeds and with increased reliability. Unlike

Fiber Optic Cable Types: A Complete Guide

The plethora of fiber optic cable types can seem overwhelming, but choosing the right cable for the job is important. Read on to learn what fiber optic

NEC Signs I-2SEA Submarine Cable Contract

NEC Signs Supply Contract for I-2SEA Submarine Fiber-Optic Cable System NEC Press Release July 3, 2026 Tokyo, July 3, 2026 – NEC Corporation (NEC; TSE: 6701) has signed a supply

Fiber Internet Installation: Step-by-Step Guide (2026)

Fiber internet uses fiber optic cables instead of coaxial cables or metal wires to transmit data. Unlike traditional cable internet, which relies on electrical

The FOA Reference For Fiber Optics

Fiber Optic Cable Cable Types: (L>R): Zipcord, Distribution, Loose Tube, Breakout Cable provides protection for the optical fiber or fibers within it appropriate for the

Submarine Cable FAQs

Submarine Cable 101 How many cables are there? As of 2026, we track more than 600 active and planned submarine cables. The total number of active cables is

Top 6 Advantages and Disadvantages of Fiber Optic

Explore the top 6 advantages and disadvantages of fiber optic cable over copper, such as increased bandwidth, low attenuation, immunity to

What is Duct Fiber Optic Cables, Application and

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What is Duct Fiber Optic Cable? Duct fiber optic cable refers to a specific type of optical cable specifically designed for wiring through pre laid

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Fiber optic drone

Fiber optic drone Ukrainian FPV drone unspooling the fiber optic cable. Ukrainian FPV drone with fiber-optic communication channel A fiber optic drone is an unmanned aerial vehicle (UAV), usually a first

Fiber optic expansion: Ministry sees "noticeable progress"

However, this is not identical for apartment buildings with a directly usable fiber optic connection: there, the fiber optic cable must first be laid to the actual user.

A High-Level Overview of the Fiber Construction Stages

4. Splicing and Connection After the fiber-optic cables are laid, the next step is splicing—joining individual fiber strands together. This process requires highly

How Deep is Fiber Optic Cable Buried: A Technical Guide

The global fiber optic network, spanning over 1.8 million km as of 2025 (per TeleGeography), is a cornerstone of 5G rollouts, rural broadband initiatives,

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