

Quantum Optical Cable



Overview

The Quantum Cable is a 7,700km subsea ultra high speed fibre-optic cable system connecting NEOM City in Saudi Arabia directly with the U. and Europe via the Mediterranean Sea. It connects NEOM with Cyprus, Italy, France and Spain. With the new fiber optic test facility at the Karlsruhe Institute of Technology (KIT), which opened on January 22, 2025, researchers aim to transmit, test and refine quantum. Quantum communication offers a revolutionary technology in terms of secure data transfer and fast information sharing. This is where fiber optic cables come to the fore as one of the cornerstones of. Unlike binary bit based digital communications, quantum information is transmitted in qubits, which can store multiple values at once, making quantum communications more secure. com Researchers at Northwestern University have achieved a significant milestone by successfully demonstrating. Fiber optics has been proven to be a powerful tool for quantum optics experiments for decades. These profit from the increased stability and convenience, as will future quantum computers.



Article Content

Apr 04, 2026

A New Era in Quantum Communication: Fiber Optics

Fiber optic cables provide an ideal infrastructure for quantum communication, providing low-loss, reliable and long-distance data transmission. With the development of the quantum internet in the future, the

Dec 23, 2025

A New Era in Quantum Communication: Fiber Optics

Explore how fiber optics are ushering in a new era of quantum communication, enabling ultra-secure data transmission and advanced networking capabilities. Discover the potential of fiber optic

Feb 01, 2026

The Role of Quantum Technology in the Future of Cables

The cable industry can meet the demands of a quantum-powered future by adopting advancements like quantum-enabled fiber optics and

Feb 08, 2026

Quantum internet breakthrough after "quantum data"

Technology Computing Quantum Computing Quantum internet breakthrough after "quantum data" transmitted through standard fiber optic cable

Oct 05, 2025

Northwestern Engineers Achieve Quantum Teleportation

Insider Brief Northwestern engineers demonstrated quantum teleportation over existing fiber optic cables carrying Internet traffic, proving

Jun 17, 2026

Engineers enable quantum communication over existing

The researchers managed quantum teleportation over a 30.2km fiber optic cable carrying 400 Gbps of classical traffic. Quantum computing seems to

Sep 25, 2025

Optical fibers fit for the age of quantum computing

However, the cable networks used today to transmit information across the globe are likely to be sub-optimal for quantum communications, due to the solid cores of their optical fibers.

Mar 09, 2026

Quantum internet inches closer thanks to new chip — it

Scientists have sent quantum signals over standard fiber-optic cables using the same connectivity that powers today's web, in what could be a major

Mar 09, 2026

First time test of UK / Ireland quantum communications

Researchers have successfully tested a fibre-optic cable to pass quantum communications under the Irish Sea between the Republic of Ireland

Jul 14, 2025

Ultra-secure quantum messages sent a record distance

A recently published article in Nature states that scientists have sent quantum information across a record-breaking 158 miles using ordinary

Apr 21, 2026

Improved Flexible Coaxial Ribbon Cable for High-Density

il: jennifer.smith@ucsb) :Maybell Quantum Industries, Denver, CO 80221 USA
Abstract—Superconducting arrays often require specialized, high-density cryogenic cabling capable

Feb 27, 2026

Quantum Cable

The Quantum Cable is a 7,700km subsea ultra high speed fibre-optic cable system connecting Asia and Europe via the Mediterranean Sea. It connects Cyprus with

Jun 06, 2026

Quantum teleportation becomes reality: Over busy

However, a recent Northwestern University study has successfully demonstrated quantum teleportation over a fiber optic cable that also carries

Jan 15, 2026

Fiber Optics in Quantum Applications

XSOE is one of the pioneers of developing PCF cables and assemblies in quantum computing and related applications, and we have many options available for our customers.

Jul 21, 2025

Engineers enable quantum communication over existing

This breakthrough lays the groundwork for quantum communication by leveraging existing infrastructure and sending quantum data alongside

Aug 19, 2025

First Demonstration of Quantum Teleportation over Busy

Northwestern engineers have successfully demonstrated quantum teleportation over a fiberoptic cable already carrying Internet traffic, introducing

Oct 03, 2025

US scientists demonstrate quantum entanglement on live internet cables

Riding the light highway: Quantum entanglement on live internet cables achieved As part of the test, the team set up an 18

Dec 03, 2025

Building quantum supercomputers: Scientists connect

Technology Computing Quantum Computing Building quantum supercomputers: Scientists connect two quantum processors using existing fiber

Feb 12, 2026

"Impossible" quantum teleportation done on basic

Northwestern University engineers made a remarkable advance in quantum computing and communication, demonstrating quantum teleportation

Nov 27, 2025

Quantum Teleportation Becomes Reality on Active

Quantum teleportation has been successfully conducted over a fiber optic cable carrying Internet traffic, merging quantum and classical

Mar 30, 2026

Optical and Quantum Communications, and the

Infrastructure: Future quantum networks can integrate with existing fiber optic cables, which can carry both classical and quantum signals, simplifying

Jun 19, 2026

Quantum internet inches closer thanks to new chip — it

Technology Computing Quantum Computing Quantum internet inches closer thanks to new chip — it helps beam quantum signals over real

Oct 13, 2025

First demonstration of quantum teleportation over busy Internet cables

Quantum teleportation could provide near-instant communication over long distances. But, inside Internet cables, photons needed for teleportation are lost within the millions of light particles ...

Nov 06, 2025

Quantum Network for Secure Communication

With the new fiber optic test facility at the Karlsruhe Institute of Technology (KIT), which opened on January 22, 2025, researchers aim to transmit, test and refine quantum keys. They also plan to set

Mar 02, 2026

Ultra-secure quantum messages sent a record distance

Unlike binary bit based digital communications, quantum information is transmitted in qubits, which can store multiple values at once, making quantum

Nov 19, 2025

First Quantum Teleportation Over Noisy Internet Cables

Quantum teleportation has been demonstrated over a fiber optic cable carrying classical traffic (like the Internet) for the first time.

Oct 05, 2025

Quantum Teleportation Becomes Reality on Active

Researchers at Northwestern University have achieved a significant milestone by successfully demonstrating quantum teleportation using a fiber optic

Mar 22, 2026

Fiber Optics for Quantum

Fiber optics has been proven to be a powerful tool for quantum optics experiments for decades. These profit from the increased stability and convenience, as will future quantum computers.

Dec 02, 2025

Scientists Achieve Quantum Teleportation Over Active

Northwestern engineers have successfully demonstrated quantum teleportation over a fiber optic cable already carrying Internet traffic, introducing

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