

Optical Cable Laying Route in India



AI Overview

India has laid nearly 698,010 route kilometres of optical fibre cables across the country, with southern states and strategic undersea connections forming key parts of the network. National OFC Deployment As of March 31, 2025, India has deployed 698,010 route kilometres of optical fibre cable (OFC) over the last three years, marking a significant expansion of digital infrastructure . The rollout has been concentrated in southern states, with Tamil Nadu (86,944 km), Kerala (81,764 km), Andhra Pradesh (70,544 km), and Telangana (65,270 km) leading the coverage . Maharashtra also contributes significantly with 56,211 km of OFC laid . This extensive network supports broadband, mobile networks, and digital services, particularly in rural and underserved areas. Public Sector Initiatives The BharatNet Phase 3 program is central to India's public sector OFC expansion, with a budget of nearly ₹1.4 lakh crore. It aims to connect 40,000 additional Gram Panchayats and provide subsidized high-speed broadband to 15 million rural households. The project uses advanced ring-topology IP-MPLS networks and incorporates private sector partnerships to accelerate deployment and improve last-mile connectivity . The merger of Bharat Broadband Network Limited with BSNL has further enhanced national asset utilization and service uptime. Undersea Cable Routes India's connectivity also relies on undersea fibre optic cables, which carry the majority of international data traffic. Currently, India is served by 17 trans-oceanic cables, with most landing at Versova, Maharashtra, creating a strategic concentration . These cables are laid using specialized ships and trenching devices to ensure proper placement on the seabed. Expanding undersea cable infrastructure is a priority to reduce vulnerability and support the growing demand for cloud, streaming, fintech, and AI-driven services . Strategic and Technological Considerations The optical cable network is designed to support next-generation broadband, 5G rollout, and AI-ready data centers, includin...

Article Content

Presentation

Survey of OFC cable route Before start of the work a careful route analysis to be done to assess the method of laying the OFC. It should be done before preparing the estimate. Preliminary survey

Google will lay new undersea fiber-optic cables

Google has announced plans to build a new network of high-capacity subsea cables and fiber-optic routes connecting India with the United States and

India's first submarine optical cable for A& N islands to

Chennai: The archipelago of Andaman and Nicobar (A& N) islands off India's east coast is set to get more connectivity, but this time its via the

Laying and Maintenance of Optical Fibre Cables in the country

As of March 31, 2025, a total of 6,98,010 route KM of Optical Fibre Cable (OFC) has been laid across the country during the last three years. The state-wise details are attached as Annexure-I.

EXTRACT FROM TECHNICAL SPECIFICATIONS OF CONTRACT

If under unavoidable circumstances, the excavation is to be done between the taxi track and runway, it shall be done to the full depth just before laying the cables and in the presence of the site-in charge's

India's Underwater Cable Project

Read about the India's Underwater Cable Project, Futrure Expansions, How the Systems are laid and What are the threats in this article.

EXTRACT FROM TECHNICAL SPECIFICATIONS OF CONTRACT OFC LAYING

(EXTRACT FROM TECHNICAL SPECIFICATIONS OF CONTRACT) OFC LAYING PRACTICE

Scope: This document lays down specifications under which the various work for trenching & laying of optical

GOVERNMENT OF INDIA MINISTRY OF COMMUNICATIONS

MINISTER OF STATE FOR COMMUNICATIONS AND RURAL DEVELOPMENT (DR. PEMMASANI CHANDRA SEKHAR) As of March 31, 2025, a total of 6,98,010 route KM of Optical Fibre Cable

NHAI to lay down 10,000 Km of optic fibre cable

National Highways Authority of India (NHAI), on Wednesday, said that it is working towards the development of around 10,000 km of Optic Fibre

Optical Fiber Communication cables

Introduction Optical fiber communication plays a vital role in the telecommunication systems of Indian Railways. Today, with the route length of more than 50,000 Km approx., OFC is used not only in

S G Encon Pvt. Ltd.

Scope of Work: Laying of Optical fiber cable with various methods (HDD, Molling, and Trenching). Planning & survey of Optical fiber cable route Fiber Related Activities like Trenching, Duct Laying,

Optical fibre cable rollout in India: Nearly 7 lakh km

India has shown substantial progress in expanding its optical fibre cable (OFC) network, laying a total of 698,010 route kilometres across the

NHAI Plans to Build Nationwide Optical Fibre Network

NHAI has shown interest in the nationwide rollout of optical fibre networks along major highways under the PPP model. With a vast highway

Specification For Installation of Duct(s) for Optical Fibre Cable(s)

1 SCOPE This specification covers the minimum requirements for the laying, joining and testing of HDPE (High Density Polyethylene) Duct for Optical Fibre Cable (OFC) either by open cut methods or

Over 6.98 Lakh Route Km Of Optical Fibre Cables Laid

Over 6.98 lakh route km of optical fibre cables have been laid across the country during the last three years, the Central government informed the

Planning and route survey | PDF

This document discusses planning and surveying for fiber optic network routes. It outlines the importance of performing a preliminary survey to identify the optimal

Optical Cable Laying Route in India

India has shown substantial progress in expanding its optical fibre cable (OFC) network, laying a total of 698,010 route kilometres across the country over the last three years, as of 31 March 2025.

Designing optical fibre cable routes by mobile laser

India is undertaking a major revamp of its communications infrastructure by laying over 100,000 kilometres of Optical Fibre Cable (OFC)

NHAI Plans to Build Nationwide Optical Fibre Network

The National Highways Authority of India (NHAI), under the PPP model, has plans to lay down its own optical fibre cable (OFC) network, along the major highways.

OFC Laying Practices and Guidelines | PDF | Rope

This document provides guidelines for laying optical fibre cables, including detailed surveying the cable route, soil categorization, recommended

Google will lay new undersea fiber-optic cables connecting India to ...

Google has announced plans to build a new network of high-capacity subsea cables and fiber-optic routes connecting India with the United States and key regions across Asia, Africa, and...

A Roadmap for Securing India's Undersea Cables

This report examines India's dependence on undersea fibre optic cables for its financial well-being. It explains the complexities involved in the laying and maintenance of these cables, lists the

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.sabineamsee.co.za>

Email: info@sabineamsee.co.za

Phone: +27 82 415 6793

Address: Unit 7, Innovation Park, 34 Electron Road, Kempton Park, 1620, South Africa

This document is for informational purposes only. Specifications subject to change without notice.

