

India Telecom Cable Market By Type (Coaxial Cable, Fiber Optic, Data Center Cables, Mobile Networks, Twisted Pair Cable, LAN Cables), By Application (Telecommunication, Data Centers, CATV, Computer Network, Others), By Region, Competition, Forecast & Opportunities, 2020-2030F

<https://marketpublishers.com/r/ICB1691BFA30EN.html>

Date: January 2025

Pages: 86

Price: US\$ 3,500.00 (Single User License)

ID: ICB1691BFA30EN

Abstracts

India Telecom Cable Market was valued at USD 6.72 Billion in 2024 and is expected to reach USD 9.97 Billion by 2030 with a CAGR of 6.63% during the forecast period.

A telecom cable is a type of cable used for transmitting data, voice, and video signals within telecommunication systems. These cables are essential components in both wired communication networks and broadband infrastructure. Telecom cables are designed to carry electrical signals over long distances with minimal signal degradation and interference.

There are various types of telecom cables, including coaxial cables, fiber optic cables, and twisted pair cables. Coaxial cables are typically used for cable television and internet services, offering high bandwidth capabilities. Twisted pair cables, often found in telephone networks and Ethernet connections, consist of pairs of insulated copper wires twisted together to reduce electromagnetic interference. Fiber optic cables, known for their speed and high capacity, use light signals transmitted through glass or plastic fibers, making them ideal for long-distance communication and high-speed data transfer.

Telecom cables are constructed with multiple layers of insulation, shielding, and protective coatings to ensure durability and efficient signal transmission. These cables

are typically used in a wide range of applications, including telecommunications, internet services, broadcasting, and data centers, playing a crucial role in modern communication networks across the globe.

Key Market Drivers

Government Initiatives and Investments in Telecom Infrastructure

Government initiatives and investments play a pivotal role in driving the India Telecom Cable market. The Indian government has undertaken numerous steps to enhance the country's telecommunication infrastructure and connectivity. These efforts are fueling the demand for telecom cables across the nation.

One of the most significant government initiatives is the Digital India program, which aims to transform India into a digitally empowered society by providing accessible and affordable internet connectivity. This initiative includes projects like BharatNet, which focuses on expanding broadband services to rural areas by laying down optical fiber cables. The large-scale rollout of fiber optic networks to underserved regions creates a massive demand for telecom cables. The government's focus on bridging the digital divide between urban and rural areas ensures that telecom cable infrastructure is a top priority. Additionally, the National Digital Communications Policy (NDCP), which outlines India's vision for achieving superior digital communication infrastructure, encourages investments in telecom infrastructure. The policy emphasizes the need for a robust and high-speed broadband network across the country, which includes expanding fiber optic cable networks for faster internet services. These government-driven projects and policies are directly stimulating demand for telecom cables, especially fiber optic cables.

The government's push for the development of smart cities and the expansion of 4G and 5G networks creates a continuous need for high-quality telecom cables. The rollout of 5G technology, in particular, requires advanced fiber optic cables capable of handling the higher data speeds and lower latencies that 5G promises to deliver. The government's active role in fostering the telecom sector through investments, policies, and projects is thus a key driver of the telecom cable market in India. The Indian government has announced plans to invest approximately USD18 billion in improving telecom infrastructure over the next 5 years. This includes investments in expanding 4G networks, the rollout of 5G services, and enhancing rural connectivity.

Rising Mobile Subscriber Base and 4G/5G Expansion

The expanding mobile subscriber base in India is another significant driver for the telecom cable market. India is one of the largest mobile markets in the world, with over a billion mobile phone subscribers. This massive number of mobile users places immense pressure on telecommunication networks to deliver efficient and high-quality services. The demand for faster data services is continuously increasing as more consumers and businesses adopt smartphones and mobile data applications.

The roll-out of 4G and the forthcoming expansion of 5G networks have led to an increased need for robust telecom infrastructure, particularly in terms of cabling. 4G services, which have gained significant traction in India over the last few years, demand the installation of high-capacity cables to support the increased data traffic. Additionally, the ongoing transition to 5G networks is expected to require even more advanced telecom cables, especially fiber optic cables, to provide ultra-fast data speeds and low latency that 5G promises.

The increased reliance on mobile internet for a variety of services such as video streaming, social media, online gaming, e-commerce, and remote work has led to higher data consumption, necessitating a more robust and efficient telecom network. Fiber optic cables are particularly crucial for 4G and 5G networks due to their ability to handle higher data rates and longer transmission distances without signal loss. Telecom cable manufacturers are therefore focusing on developing advanced solutions to support the rapid deployment of 4G and 5G infrastructure across India.

The government's push for 5G adoption and the ongoing efforts by telecom operators like Reliance Jio, Airtel, and Vodafone Idea to expand 4G and 5G coverage are directly contributing to the demand for telecom cables in India. This expansion is expected to drive the market further, especially as telecom companies build the infrastructure needed to support next-generation networks. As of 2024, India has approximately 1.2 billion mobile subscribers, making it the second-largest mobile market in the world after China. The rollout of 5G networks has started in major cities, and India is expected to have 500 million 5G subscribers by 2025, which would represent about 40-45% of the total mobile subscriber base.

Increased Adoption of Smart Devices and IoT

The increasing adoption of smart devices and the rise of the Internet of Things (IoT) are significantly driving the demand for telecom cables in India. As India experiences a surge in connected devices, the need for reliable and high-capacity communication networks becomes more pressing. The growth of IoT, which includes smart homes,

smart cities, connected vehicles, and industrial IoT, relies heavily on telecom networks to transmit vast amounts of data generated by these devices.

For IoT to function seamlessly, especially in applications like smart cities, automation, healthcare, and manufacturing, telecom infrastructure needs to be robust and capable of handling the increased data flow. Fiber optic cables, which provide high-speed and high-capacity data transmission, are essential for the smooth functioning of IoT networks. Telecom cables are also critical in ensuring that devices remain connected to the internet, enabling real-time communication and data exchange.

The rise of smart cities, in particular, is a major factor driving the demand for telecom cables. These cities require extensive communication infrastructure to support smart traffic systems, public safety surveillance, utility management, and environmental monitoring. Fiber optic networks are ideal for these applications due to their speed, reliability, and ability to handle high volumes of data.

As more people in India adopt smart devices, including wearables, home automation systems, and connected appliances, the demand for strong, high-capacity telecom networks that can support IoT ecosystems grows. Telecom cable manufacturers are increasingly focusing on providing solutions that cater to the needs of these smart applications. The expansion of IoT and the growing adoption of smart technologies in India will continue to drive the telecom cable market forward in the coming years. By 2025, over 90% of smartphones in India will likely support 4G or 5G networks, boosting the demand for internet-enabled devices.

Key Market Challenges

High Installation and Maintenance Costs

One of the significant challenges facing the India Telecom Cable market is the high cost associated with the installation and maintenance of telecom cable networks, particularly fiber optic cables. While fiber optic technology offers superior performance in terms of speed, reliability, and bandwidth, it requires substantial investment in both infrastructure and ongoing maintenance. The high initial cost of laying fiber optic cables, especially in rural or remote areas, can be a significant barrier to market growth.

In India, the deployment of telecom cables, especially in rural regions, is complex due to geographical challenges, low population density, and the need to lay cables over long distances. Laying fiber optic cables in remote or hilly areas often involves extensive civil

work, such as trenching, road digging, and overcoming environmental hurdles like rivers, mountains, or forests. The cost of these activities adds to the overall expense of infrastructure development. Furthermore, the maintenance of these networks also incurs considerable costs. Telecom cables, particularly those installed underground, can be subject to damage from natural disasters like floods, earthquakes, or even construction activities. Additionally, wear and tear over time can lead to signal degradation, necessitating routine checks and repairs. Ensuring that telecom cables are functioning optimally involves periodic maintenance and replacement, which can be both time-consuming and expensive. The ongoing costs of operation and the need to ensure network stability in the face of environmental challenges increase the financial burden on telecom operators.

In urban areas, while the cost of fiber optic deployment may be less challenging, the saturation of networks and the competition between telecom operators adds pressure on operators to maintain cost-effective operations. For example, in metropolitan cities where telecom infrastructure is already well-established, the costs involved in upgrading or replacing existing cables to support newer technologies, such as 5G, add to the overall investment requirements.

For telecom cable manufacturers and operators, the challenge lies in balancing these high capital expenditures with the competitive pricing of services. With the pressure to offer affordable internet and data services to a price-sensitive population, maintaining profitability while meeting the infrastructure demands becomes a delicate balancing act. As a result, high installation and maintenance costs remain a key challenge for the growth of the India Telecom Cable market.

Regulatory and Bureaucratic Hurdles

Another significant challenge faced by the India Telecom Cable market is the complex regulatory environment and bureaucratic hurdles that telecom operators encounter during the deployment of telecom cables. The regulatory landscape in India is often fragmented and inconsistent across states and local jurisdictions, which can create delays, additional costs, and legal complications for companies involved in the installation and operation of telecom networks.

Obtaining the necessary approvals and permits from local authorities is a time-consuming and often cumbersome process. Telecom companies must navigate through multiple layers of government, including municipal, state, and federal levels, each with its own set of requirements, procedures, and timelines. The process of acquiring rights

of way for laying cables—whether underground or along utility poles—can be slow and inconsistent, leading to project delays. Furthermore, local governments and authorities may impose restrictions or additional costs based on regional policies, environmental concerns, or land acquisition issues. These bureaucratic inefficiencies can significantly slow down the rollout of telecom infrastructure, particularly in rural and remote areas.

Another regulatory challenge faced by telecom cable operators is the spectrum allocation for new technologies, such as 5G. While the government has been taking steps to auction spectrum licenses for 5G services, there have been concerns regarding the high cost of spectrum, which may deter telecom operators from making the necessary investments in next-generation cable infrastructure. Additionally, regulatory delays in the approval of new technologies or infrastructure can prevent operators from meeting their network expansion targets on time, affecting service quality and user experience.

In some cases, the regulatory framework does not always align with the technological requirements of telecom companies. For instance, the policies governing the deployment of fiber optic networks may not always be up-to-date with the latest industry standards or innovations. This mismatch between regulatory practices and technological advancements can create friction and hamper the efficient deployment of telecom cables.

The complexity and unpredictability of the regulatory landscape can increase the operational costs for telecom cable companies and create uncertainties around their ability to expand and modernize their infrastructure. Overcoming these regulatory hurdles is essential for ensuring the timely growth and expansion of the India Telecom Cable market.

Key Market Trends

Increased Adoption of Fiber Optic Cables

One of the most prominent trends in the India Telecom Cable market is the accelerated adoption of fiber optic cables, especially for broadband and 4G/5G networks. Fiber optic cables offer substantial advantages over traditional copper cables in terms of speed, capacity, and reliability, making them the preferred choice for telecom operators and infrastructure developers. The growing demand for high-speed internet, coupled with the Indian government's push to improve digital connectivity through initiatives like Digital India and BharatNet, has significantly boosted the adoption of fiber optic

technology.

As the demand for faster internet speeds and higher data capacities increases, telecom companies are shifting their focus from copper-based cables to fiber optic solutions. Fiber optics provide much higher bandwidth, enabling smoother data transmission over long distances without degradation in signal quality. This makes fiber optic cables essential for the roll-out of 4G and 5G networks, both of which require advanced communication infrastructure capable of handling large volumes of data with low latency.

The shift to fiber optics is also driven by the need for more reliable networks in both urban and rural areas. While the urban areas are experiencing the need for higher capacity to handle increased traffic, the rural areas are being upgraded as part of the government's efforts to provide broadband services in underserved regions. Fiber optic cables are being laid to connect remote villages and towns, expanding internet access to a larger population. Telecom companies are also investing heavily in fiber optic infrastructure to enhance their competitive edge and meet the growing demand for seamless digital experiences in both personal and business contexts.

With the rise in smart devices, IoT applications, and the increasing trend of video content consumption, the demand for high-quality internet connections is expected to grow further. This makes the transition to fiber optic technology not just a market trend, but a long-term necessity. Fiber optic cables will continue to dominate the telecom cable market in India due to their ability to support next-generation technologies like 5G, high-definition video streaming, and large-scale IoT networks. As of 2024, India has approximately 23 million fiber broadband subscribers, with a significant increase in the number of households and businesses switching to fiber-based internet services for higher speeds and more reliable connectivity.

Expansion of 5G Networks

The expansion of 5G networks is another critical market trend in India's telecom cable industry. The introduction of 5G promises to revolutionize mobile communications by offering ultra-fast internet speeds, low latency, and higher reliability, making it essential for telecom companies to upgrade their infrastructure. Telecom cable companies in India are experiencing increased demand for high-performance cables, particularly fiber optic cables, as they form the backbone of 5G networks.

The Indian government has already initiated efforts to facilitate the roll-out of 5G

networks through spectrum auctions and providing regulatory support. Major telecom operators like Jio, Airtel, and Vodafone Idea are heavily investing in 5G infrastructure to provide next-generation services. Fiber optic cables are being extensively deployed for 5G backhaul, connecting cell towers to data centers and ensuring efficient communication between 5G base stations. The high bandwidth and low latency capabilities of fiber optics are crucial to supporting the massive data transfer demands of 5G networks.

The demand for fiber optic telecom cables will surge as 5G technology requires high-speed, large-capacity networks to support services such as ultra-fast mobile broadband, real-time communication, and the growing number of IoT devices. Fiber optic cables are capable of handling the immense data traffic generated by 5G, especially in urban centers where the density of users is high. Telecom operators must install large numbers of fiber optic cables to ensure smooth and efficient data transfer, making the fiber optic segment a significant growth area in India's telecom cable market. Furthermore, the deployment of 5G networks presents an opportunity for market players to offer innovative solutions tailored for the new technology. The demand for low-latency, high-reliability cables suitable for 5G will drive the evolution of telecom cable products, with new materials and technologies emerging to support these future communication systems..

Segmental Insights

Type Insights

The Fiber Optic held the largest market share in 2024. Fiber optic cables dominate the India Telecom Cable market due to several key factors that align with the country's evolving digital landscape and the increasing demand for high-speed, reliable communication networks.

Fiber optic cables are renowned for their ability to transmit data at extremely high speeds with minimal signal loss over long distances. As India witnesses a surge in internet usage, driven by digital transformation, the need for high-bandwidth networks to support activities like video streaming, cloud computing, online gaming, and IoT applications has risen significantly. Fiber optic technology meets this demand effectively, offering the capacity to handle large volumes of data at fast speeds, which is essential for the growth of both consumer and business services.

The Indian government's Digital India and BharatNet programs are major contributors to

the increased demand for fiber optic cables. These initiatives aim to provide affordable and accessible internet connectivity to both urban and rural areas. Fiber optics are the backbone of these projects, as they enable reliable, high-speed broadband access across diverse geographic regions, including remote villages. The expansion of broadband services to rural India is a key factor pushing the deployment of fiber optic cables.

With the roll-out of 4G networks and the anticipated growth of 5G infrastructure, fiber optic cables are essential for providing the backhaul networks required for these high-speed mobile networks. Fiber optics offer the high-speed, low-latency capabilities needed to support the vast data requirements of 5G services, including faster download speeds and enhanced connectivity for IoT devices.

Fiber optic cables are less prone to interference and signal degradation compared to traditional copper cables, making them highly reliable for long-term use. This quality is particularly important in India, where varying environmental conditions and natural disasters can disrupt telecommunication networks. Fiber optics provide a more stable solution for the growing telecom infrastructure, making them the preferred choice for operators across the country.

Regional Insights

South India held the largest market share in 2024. South India has emerged as a dominant region in the India Telecom Cable market due to several key factors, including infrastructure development, high technological adoption, and a strong presence of leading telecom operators.

One of the primary reasons for South India's dominance in the telecom cable market is its advanced telecom infrastructure. States like Tamil Nadu, Karnataka, Telangana, and Andhra Pradesh have seen rapid urbanization and industrialization, fostering the need for robust telecom networks. Major metropolitan cities such as Chennai, Bengaluru, Hyderabad, and Kochi are hubs for information technology (IT), e-commerce, and business process outsourcing (BPO) companies, all of which require high-speed, reliable internet connections. This demand for advanced telecommunication services drives the need for modern telecom cable solutions, particularly fiber optic cables. Additionally, South India has become a focal point for data center development. The region hosts several large data centers and cloud computing facilities, which require high-performance telecom cables, especially fiber optic solutions, to ensure fast data transmission and connectivity. Cities like Bengaluru and Hyderabad are considered

technology hotspots, attracting both domestic and international tech giants, which in turn increases the demand for high-quality telecom cables.

Telecom operators such as Reliance Jio, Airtel, and Vodafone Idea have heavily invested in network expansion in South India, including fiber optic cable deployments for 4G and 5G infrastructure. The region is also a key focus area for government-led broadband initiatives like BharatNet, further boosting the adoption of telecom cables in rural and semi-urban areas.

Key Market Players

Corning Incorporated

Prysmian S.p.A

Nexans

CommScope, Inc

Southwire Company, LLC

Furukawa Electric Co., Ltd.

Huawei Technologies Co., Ltd.

NKT A/S

Report Scope:

In this report, the India Telecom Cable Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

India Telecom Cable Market, By Type:

Coaxial Cable

Fiber Optic

Data Center Cables

Mobile Networks

Twisted Pair Cable

LAN Cables

India Telecom Cable Market, By Application:

Telecommunication

Data Centers

CATV

Computer Network

Others

India Telecom Cable Market, By Region:

South India

North India

West India

East India

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the India Telecom Cable Market.

Available Customizations:

India Telecom Cable Market report with the given market data, TechSci Research offers

India Telecom Cable Market By Type (Coaxial Cable, Fiber Optic, Data Center Cables, Mobile Networks, Twisted P...

customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

Detailed analysis and profiling of additional market players (up to five).

Contents

1. PRODUCT OVERVIEW

- 1.1. Market Definition
- 1.2. Scope of the Market
 - 1.2.1. Markets Covered
 - 1.2.2. Years Considered for Study
- 1.3. Key Market Segmentations

2. RESEARCH METHODOLOGY

- 2.1. Objective of the Study
- 2.2. Baseline Methodology
- 2.3. Formulation of the Scope
- 2.4. Assumptions and Limitations
- 2.5. Sources of Research
 - 2.5.1. Secondary Research
 - 2.5.2. Primary Research
- 2.6. Approach for the Market Study
 - 2.6.1. The Bottom-Up Approach
 - 2.6.2. The Top-Down Approach
- 2.7. Methodology Followed for Calculation of Market Size & Market Shares
- 2.8. Forecasting Methodology
 - 2.8.1. Data Triangulation & Validation

3. EXECUTIVE SUMMARY

4. VOICE OF CUSTOMER

5. INDIA TELECOM CABLE MARKET OUTLOOK

- 5.1. Market Size & Forecast
 - 5.1.1. By Value
- 5.2. Market Share & Forecast
 - 5.2.1. By Type (Coaxial Cable, Fiber Optic, Data Center Cables, Mobile Networks, Twisted Pair Cable, LAN Cables)
 - 5.2.2. By Application (Telecommunication, Data Centers, CATV, Computer Network, Others)

5.2.3. By Region (South India, North India, West India, East India)

5.2.4. By Company (2024)

5.3. Market Map

6. SOUTH INDIA TELECOM CABLE MARKET OUTLOOK

6.1. Market Size & Forecast

6.1.1. By Value

6.2. Market Share & Forecast

6.2.1. By Type

6.2.2. By Application

7. NORTH INDIA TELECOM CABLE MARKET OUTLOOK

7.1. Market Size & Forecast

7.1.1. By Value

7.2. Market Share & Forecast

7.2.1. By Type

7.2.2. By Application

8. WEST INDIA TELECOM CABLE MARKET OUTLOOK

8.1. Market Size & Forecast

8.1.1. By Value

8.2. Market Share & Forecast

8.2.1. By Type

8.2.2. By Application

9. EAST INDIA TELECOM CABLE MARKET OUTLOOK

9.1. Market Size & Forecast

9.1.1. By Value

9.2. Market Share & Forecast

9.2.1. By Type

9.2.2. By Application

10. MARKET DYNAMICS

10.1. Drivers

10.2. Challenges

11. MARKET TRENDS & DEVELOPMENTS

12. INDIA ECONOMIC PROFILE

13. COMPANY PROFILES

13.1. Corning Incorporated

13.1.1. Business Overview

13.1.2. Key Revenue and Financials

13.1.3. Recent Developments

13.1.4. Key Personnel/Key Contact Person

13.1.5. Key Product/Services Offered

13.2. Prysmian S.p.A

13.2.1. Business Overview

13.2.2. Key Revenue and Financials

13.2.3. Recent Developments

13.2.4. Key Personnel/Key Contact Person

13.2.5. Key Product/Services Offered

13.3. Nexans

13.3.1. Business Overview

13.3.2. Key Revenue and Financials

13.3.3. Recent Developments

13.3.4. Key Personnel/Key Contact Person

13.3.5. Key Product/Services Offered

13.4. CommScope, Inc

13.4.1. Business Overview

13.4.2. Key Revenue and Financials

13.4.3. Recent Developments

13.4.4. Key Personnel/Key Contact Person

13.4.5. Key Product/Services Offered

13.5. Southwire Company, LLC

13.5.1. Business Overview

13.5.2. Key Revenue and Financials

13.5.3. Recent Developments

13.5.4. Key Personnel/Key Contact Person

13.5.5. Key Product/Services Offered

13.6. Furukawa Electric Co., Ltd.

- 13.6.1. Business Overview
- 13.6.2. Key Revenue and Financials
- 13.6.3. Recent Developments
- 13.6.4. Key Personnel/Key Contact Person
- 13.6.5. Key Product/Services Offered
- 13.7. Huawei Technologies Co., Ltd.
 - 13.7.1. Business Overview
 - 13.7.2. Key Revenue and Financials
 - 13.7.3. Recent Developments
 - 13.7.4. Key Personnel/Key Contact Person
 - 13.7.5. Key Product/Services Offered
- 13.8. NKT A/S
 - 13.8.1. Business Overview
 - 13.8.2. Key Revenue and Financials
 - 13.8.3. Recent Developments
 - 13.8.4. Key Personnel/Key Contact Person
 - 13.8.5. Key Product/Services Offered

14. STRATEGIC RECOMMENDATIONS

15. ABOUT US & DISCLAIMER

I would like to order

Product name: India Telecom Cable Market By Type (Coaxial Cable, Fiber Optic, Data Center Cables, Mobile Networks, Twisted Pair Cable, LAN Cables), By Application (Telecommunication, Data Centers, CATV, Computer Network, Others), By Region, Competition, Forecast & Opportunities, 2020-2030F

Product link: <https://marketpublishers.com/r/ICB1691BFA30EN.html>

Price: US\$ 3,500.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/ICB1691BFA30EN.html>