

Wires & cables industry report

7th September 2026



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GLOSSARY OF ABBREVIATIONS USED

S.No.	Abbreviation used	Full form
1	4G	4th generation
2	5G	5th generation
3	AI	Artificial Intelligence
4	AMRUT	Atal Mission for Rejuvenation and Urban Transformation
5	APAC	Asia-Pacific
6	ASEAN	Association of Southeast Asian Nations
7	B	Billion
8	BRICS	Brazil, Russia, India, China, and South Africa
9	BSNL	Bharat Sanchar Nigam Limited
10	CAGR	Compound Annual Growth Rate
11	CAT	Category
12	CCTV	Closed Circuit Television
13	CNI	Critical National Infrastructure
14	CoE	Centres of Excellence
15	CPI	Consumer Price Index
16	Cr	Crore
17	CY	Calendar Year
18	DCEZs	Data Centre Economic Zones
19	DCIS	Data Centre Incentive Scheme
20	DGFT	Directorate General of Foreign Trade
21	DPDP	Digital Personal Data Protection Act
22	DSL	Digital Subscriber Line
23	E	Estimated
24	ESMA	Essential Services Maintenance Act
25	EV	Electric Vehicle
26	FDI	Foreign Direct Investment
27	FKm	Fibre kilometres
28	FTTH	Fibre-to-the-home
29	FY	Financial Year
30	GB	Gigabyte
31	GBPS	Gigabits Per Second
32	GDP	Gross Domestic Product
33	GoI	Government of India
34	GSO	Geostationary orbit
35	GVA	Gross Value Added
36	HDD	Hard Disk Drive
37	HDMI	High-Definition Multimedia Interface
38	HPC	High Performance Computing
39	HVAC	Heating, ventilation, and air conditioning
40	IMF	International Monetary Fund
41	INR	Indian rupee
42	IoT	Internet of things
43	IP	Intellectual Property
44	ISO	International Organisation for Standardisation
45	ISPs	Internet Service Providers
46	IT	Information Technology
47	JAM	Jan Dhan, Aadhaar, and Mobile
48	K	Thousand
49	KBPS	Kilobits per second
50	KW	Kilowatt
51	L	Lakh
52	LAN	Local Area Network

53	LEO	Low Earth Orbit
54	M	Million
55	MBPS	Megabits Per Second
56	MEA	Middle East & Africa
57	MEO	Medium Earth Orbit
58	ML	Machine Learning
59	MMF	Multi-mode Fibre
60	MTNL	Mahanagar Telephone Nigam Limited
61	MW	Megawatt
62	NDA	Non-disclosure agreements
63	OADC	Open Access Data Centres
64	OEMs	Original Equipment Manufacturer
65	OTT	Over the top
66	P	Projected
67	PMAY	Pradhan Mantri Awas Yojana
68	PM-WANI	Prime Minister's Wi-Fi Access Network Interface
69	R&D	Research & development
70	RBI	Reserve Bank of India
71	RE	Real Estate
72	RERA	Regulation and Development
73	RG-6	Radio Guide-6
74	RKm	Route kilometres
75	SDD	Solid Disk Drive
76	SMF	Single-Mode Fibre
77	STP	Shielded Twisted Pair
78	T	Trillion
79	TV	Television
80	UAV	Unmanned aerial vehicle
81	UK	United Kingdom
82	UNFCCC	United Nations Framework Convention on Climate Change
83	US	United States
84	US\$	United States dollar
85	USB	Universal Serial Bus
86	UTP	Unshielded Twisted Pair
87	VoIP	Voice over Internet Protocol
88	VPN	Virtual private network
89	WAN	Wide area networks

1. Macroeconomic Scenario

1.1 Global macroeconomic overview

1.1.1 The global real GDP is expected to rise at ~3.2% from CY26-30, while India is expected to grow at ~6.5% from CY26-30

Global real GDP has increased by 3.4% in CY25 despite challenges such as higher interest rates, tighter financial conditions, and geopolitical tensions, including Russia's ongoing war in Ukraine, escalating conflict in the Middle East and turbulent US-China relations with a trend of sanctions ranging from solar cells to computer chips. In comparison, India is projected to maintain the highest growth rate, with a year-on-year increase of ~7.6% in CY25, expected to average ~6.7% annually till CY30. Further, interest rate cuts by the U.S. Federal Reserve are expected to have a positive impact on global GDP growth by lowering the borrowing cost and increased global demand.

Real GDP growth – India, China, Germany, USA, UK, World
(Y-o-Y growth %, CY18-30P)

Top economies	 India	 China	 Germany	 USA	 UK	 World
CY18	6.5%	6.8%	1.1%	3.0%	1.6%	3.6%
CY19	3.9%	6.1%	1.0%	2.6%	1.3%	3.0%
CY20	-5.8%	2.3%	-4.1%	-2.1%	-10.0%	-2.7%
CY21	9.7%	8.6%	3.9%	6.2%	8.5%	6.7%
CY22	7.6%	3.1%	1.8%	2.5%	5.1%	3.8%
CY23	7.2%	5.4%	-0.9%	2.9%	0.3%	3.3%
CY24	7.1%	5.0%	-0.5%	2.8%	1.1%	3.4%
CY25	7.6%	5.0%	0.2%	2.1%	1.3%	3.4%
CY26E	6.5%	4.4%	0.8%	2.3%	0.8%	3.1%
CY27P	6.5%	4.0%	1.2%	2.1%	1.3%	3.2%
CY28P	6.5%	4.0%	1.2%	2.1%	1.6%	3.2%
CY29P	6.5%	3.7%	0.9%	1.9%	1.6%	3.2%
CY30P	6.5%	3.3%	0.7%	1.8%	1.5%	3.1%

Source(s): International Monetary Fund (World Economic Outlook: April 2026), ILattice analysis

1.1.2 Global inflation rose from ~3.6% in CY18 to ~4.1% in CY25, while India's inflation rate remained lower at ~2.1% in CY25 and expected to be ~4.0% over CY26-30P

Countries heavily reliant on energy imports, like Germany and the UK, were particularly affected by recent disruptions, leading to a higher inflation rate. India's CPI inflation rate was ~5.4% in CY23 and is estimated to moderate to ~4.7% by CY26, supported by easing food inflation, improved agricultural output, favourable base effects, and stable domestic supply conditions. During CY20-25 period, inflationary pressures were primarily driven by volatility in food prices, fuel costs, and key commodities such as edible oils and precious metals, alongside periodic supply-side disruptions. Inflation moderated in CY25 owing to softer food prices, improved availability of vegetables and pulses, easing global commodity prices, and continued monetary policy measures to maintain price stability. By CY27, the RBI aims to bring the CPI inflation rate to a target of ~4.0%.

Inflation rate, avg. consumer prices – India, China, Germany, USA, UK, World
(Y-o-Y growth %, CY18-30P)

Top economies	 India	 China	 Germany	 USA	 UK	 World
CY18	3.4%	2.1%	1.9%	2.4%	2.5%	3.6%
CY19	4.8%	2.9%	1.4%	1.8%	1.8%	3.6%
CY20	6.2%	2.5%	0.4%	1.3%	0.9%	3.3%
CY21	5.5%	0.9%	3.2%	4.7%	2.6%	4.7%
CY22	6.6%	2.0%	8.7%	8.0%	9.1%	8.7%
CY23	5.4%	0.2%	6.0%	4.1%	7.3%	6.7%
CY24	4.6%	0.2%	2.5%	3.0%	2.5%	5.8%
CY25	2.1%	0.0%	2.3%	2.7%	3.4%	4.1%
CY26E	4.7%	1.2%	2.7%	3.2%	3.2%	4.4%
CY27P	4.0%	1.5%	2.3%	2.1%	2.4%	3.7%
CY28P	4.0%	1.8%	2.0%	2.2%	2.0%	3.4%
CY29P	4.0%	1.9%	2.2%	2.2%	2.0%	3.2%
CY30P	4.0%	2.0%	2.2%	2.2%	2.0%	3.2%

Source(s): International Monetary Fund (World Economic Outlook: April 2026), ILattice analysis

1.2 India Macro Economic overview

1.2.1 India's per capita income stood at ~US\$ 2.7K in CY25 and is expected to reach ~US\$ 4.0K by CY30

India's per capita income is expected to rise from ~US\$ 2.7K in CY25 to ~US\$ 4.0K by CY30 growing at a CAGR of ~8.6%, driven by strong manufacturing, higher agricultural output, and robust government spending, making it the fastest-growing major economy, followed by China (~6.1%), the UK (~4.7%), the Germany (~4.2%), and USA (~3.8%).

Global GDP per capita – Top economies

(US\$, CY18-30P)

Top economies		CY18	CY25	CY30P	CAGR CY18-25	CAGR CY25-30P
India		1,930.3	2,675.3	4,047.8	4.8%	8.6%
USA		63,165.3	89,991.2	1,08,659.5	5.2%	3.8%
Germany		49,384.5	60,438.8	74,263.7	2.9%	4.2%
UK		43,760.4	57,608.2	72,501.3	4.0%	4.7%
China		10,038.3	13,968.1	18,775.5	4.8%	6.1%

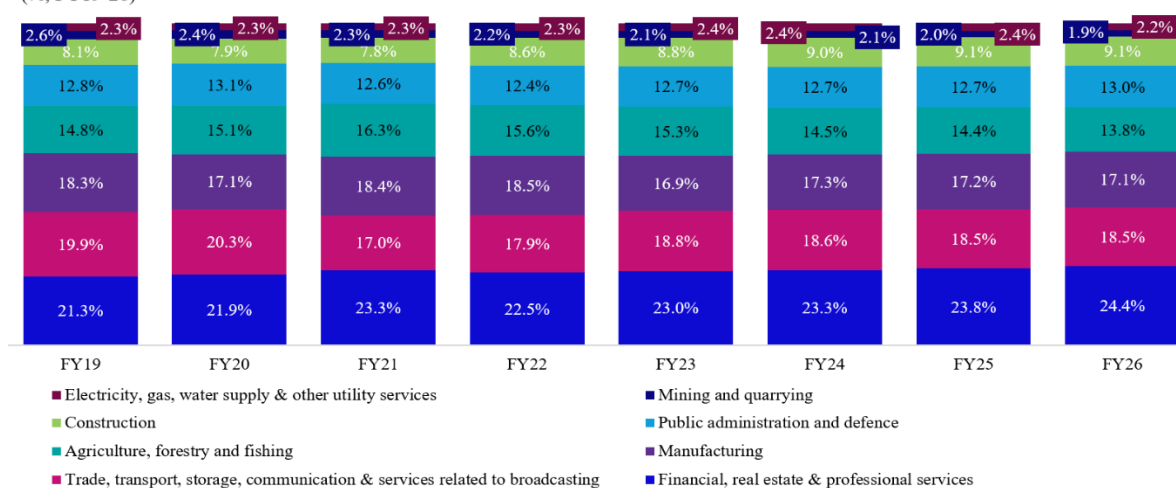
Source(s): International Monetary Fund (World Economic Outlook: April 2026), ILattice analysis

1.2.2 In FY26, the financial, real estate & professional services segment was the highest contributor to GVA in India with ~24.4%, followed by trade, transport and related services (~18.5%) and manufacturing (~17.1%)

In FY26, the financial, real estate & professional services segment was the highest contributor to GVA in India with ~24.4%, followed by trade, transport and related services (~18.5%) and manufacturing (~17.1%). In FY19, the financial, real estate & professional services segment was the highest contributor to GVA with ~21.3%, followed by trade, transport and related services (~19.9%).

GVA by economic activity at constant prices

(%, FY19-26)



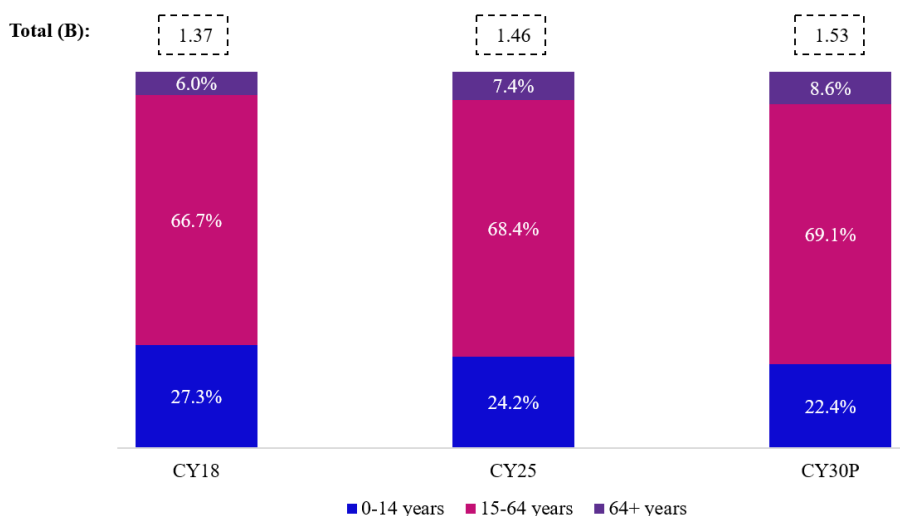
Source(s): MoSPI, ILattice analysis

1.2.3 Demographic distribution

1.2.3.1 The working-age group (15-64 years) remains dominant, making up ~67-68% of the population during CY18-25

During the period CY18-25, the working-age population (15-64 years) accounted for a dominant ~67-68% of the total population, while the child demographic (0-14 years) comprised ~25-27%, and the elderly (64+ years) made up ~6-7%. 15-64 years age group has the highest percentage split is expected to grow to ~69% by CY30, while the 0-14 years age group population is on to decline to ~22% in CY30. The size of India's workforce is a major competitive advantage as the country tries to become a global design and manufacturing hub.

Age-wise population breakdown– India (%, CY18-30P)



Source(s): PopulationPyramid, IILattice analysis

1.2.4 Share of the urban population in India as percentage of the overall population is expected to rise from ~36% in CY25 to ~37% in CY30

The share of the urban population in India as percentage of the overall population is expected to rise from ~36% in CY25 to ~37% in CY30, expected to add over ~400M people to urban areas by CY50. This urban shift is fuelling demand for residential properties, gated communities, and integrated townships, catering to the desire for upgraded lifestyles and modern amenities like IoT etc.

- **Rise of smart cities:** The development of smart cities, driven by initiatives like India's Smart Cities Mission, focuses on creating urban areas that leverage technology for efficient governance, sustainable living, and enhanced quality of life
- **Digitalisation and connectivity:** Digitalisation has transformed cities into hubs of opportunity. High-speed internet, advanced communication networks, and seamless access to digital services. The ability to work remotely or in hybrid setups has also altered perceptions of city living, encouraging migration for better technological access and connectivity

2. Telecom industry overview

Global telecom industry was valued at ~US\$ 2.1T in CY25 and is expected to grow at a CAGR of ~5.5% between CY25-30P to reach ~US\$ 2.7T by CY30

The global telecom industry was valued at ~US\$ 1.5T in CY18 and reached ~US\$ 2.1T in CY25, reflecting a ~4.9% CAGR. It is expected to reach ~US\$ 2.7T by CY30, growing at a CAGR of ~5.5% over CY25-30. Key growth drivers of the global telecom industry include 6G technology, which enables faster speeds and lower latency, driving demand for high-bandwidth services. Bridging the digital gap remains a priority, as billions still lack internet access, presenting significant opportunities for telecom providers. Additionally, the rise in smartphones and other devices is fuelling increased mobile data consumption, while the expansion of Internet of Things (IoT) opens new avenues for growth.

Indian telecom industry is valued at ~INR 4.0T in FY26 and is expected to grow at a CAGR of ~8.5% from FY26-31 to reach ~INR 6.0T by FY31

Indian telecom industry was valued at ~INR 2.4T in FY19 and reached ~INR 4.0T in FY26, reflecting a ~7.6% CAGR. The market is projected to continue its expansion, reaching ~INR 6.0T by FY31, growing at a CAGR of ~8.5% over FY26-31. This growth is driven by affordable smartphones expanding internet access, the 5G rollout enhancing digital experiences on the foundation of 4G investments that improved rural connectivity, rising demand for digital services, and initiatives like BharatNet expanding broadband access and rising data consumption.

Growth drivers

	Smartphone penetration	Rising availability of affordable smartphones will expand internet access, connect first-time users, and significantly contribute to the growth of the telecom industry
	Expansion of network infrastructure	5G rollout will enhance digital experiences, building on 4G investments that expanded connectivity, including in rural areas
	Transition into digital economy	Digital services, including e-commerce, streaming, and payments, are driving data demand, with India's digital economy projected to reach ~20% of GDP by FY26
	Government initiatives/policies	BharatNet and similar initiatives will play vital role in expanding high-speed broadband in rural areas, enhancing nationwide connectivity and telecom growth
	Rising data consumption	Monthly data consumption per smartphone in India is projected to grow at a CAGR of ~15% over the next five year

The Indian government has introduced initiatives like the Production-Linked Incentive scheme to boost domestic manufacturing, BharatNet to connect Gram Panchayats, Prime Minister Wi-Fi Access Network Interface to expand public Wi-Fi, relaxed Foreign Direct Investment norms, and the Universal Service Obligation Fund to support operators serving rural areas

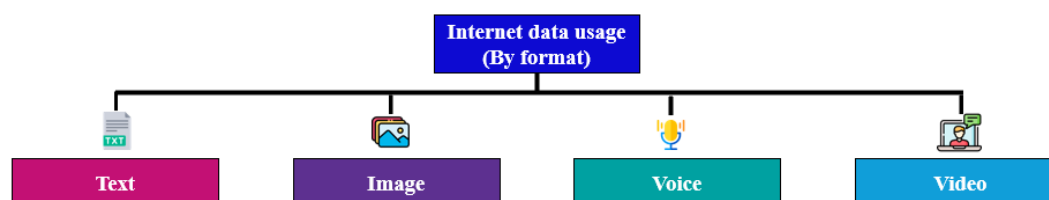
The telecommunications industry depends on various components working together to enable fast and reliable communication. These can broadly be categorized into two types:

- **Terminal components:** Devices like smartphones, computers, fax machines, etc. that enable users to send, receive, and process information
- **Networking components:** Essential for connecting devices and managing data flow
 - **Active networking components:** Devices like routers, switches, modems, etc. that direct and process data
 - **Passive networking components:** Physical mediums networking cables, connectors, etc. for data transmission

Networking cables are critical for enabling data transmission across short and long distances, forming the backbone of internet and communication systems. Various types of networking cables used in the telecom industry include ethernet / LAN cables and coaxial cables

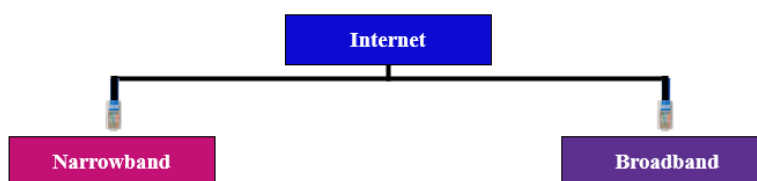
2.1 Overview of the internet infrastructure market

The internet has evolved significantly in how data is consumed, transitioning from simple text-based content in its early days to a diverse array of formats today, including voice, text, images, and videos. Initially, the internet primarily supported text for emails and basic websites. Over time, it incorporated richer formats like images and audio, enhancing communication and engagement. The shift to video content marked a significant milestone, enabling more dynamic and immersive interactions. Today, real-time voice and video interactions have become integral to modern internet usage. The shift in internet usage has driven infrastructural growth, with broadband cables playing a crucial role in supporting video streaming, real-time communication, and data-heavy services. High-quality broadband cables ensure fast, stable connections, reducing latency and expanding high-speed internet access.



The internet infrastructure is classified into narrowband and broadband based on bandwidth, which refers to the range of frequencies used in communication. Higher bandwidth allows for higher data transfer rates in the communication system. Narrowband, with lower bandwidth, supports limited data transfer rates and is suited for applications like voice communication and basic telemetry. Broadband, with higher bandwidth, enables higher data transfer rates, supporting data-intensive applications like streaming, online gaming, video conferencing, etc. The growing reliance on digital

services has accelerated the demand for broadband connectivity. This shift is further supported by advancements in technologies such as fibre-optic networks and wireless solutions, enabling faster and more reliable communication.



3. Overview of the wires & cables market

The wires & cables industry plays a crucial role in supporting modern infrastructure across industries, enabling the seamless transmission of electricity and data across various sectors. With increasing urbanisation, industrialisation, and adoption of renewable energy systems, the demand for reliable and efficient wiring & cable solutions has surged. Technological advancements in materials and manufacturing processes, coupled with the rise of smart grids and digital communication networks, have further propelled growth. The wires & cables market caters to diverse applications, including power distribution, telecommunications, construction, automotive, and industrial machinery, making it indispensable to modern economies. Broadly, wires & cables are divided into five different categories.

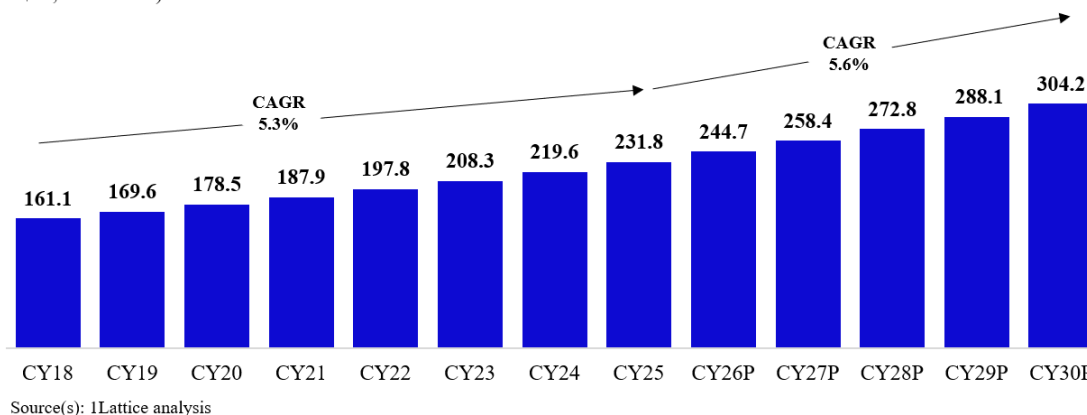
Wires & cables			End users	Use cases
Broadband cables	Networking cables	Ethernet / LAN cables	Telecom providers, IT companies, Data centres, Residential users	Home broadband, Office broadband, Telecommunication, Security & surveillance, Defence
		Coaxial cables	Cable operators, Internet service providers, Data centres	Internet connectivity, Audio/Video systems, Radio frequency applications
	Fibre-optic cables	Single-mode fibre	Data centres, Internet providers, Cloud service providers	Last mile connectivity, Citywide network, Cloud and server communication, Aggregator modes within the city, High-speed network & 5G network
		Multi-mode fibre	Corporate offices, IT hubs, Data centres, Educational institutions	Short distance communication, Local area network, Office, Commercial setup, In-building cables
Housing wires			Residential & commercial buildings, Shopping complexes, Offices	Electrical power distribution, Heating, ventilation, Air conditioners, Home automation
Power cables	Low voltage cables		Utilities, Municipalities, Infrastructure developers	Street lighting, Commercial wiring, utilities like street lighting & signage
	Medium voltage cables		Manufacturing, Energy providers, Industrial operators	Renewable energy plants, Industrial facilities, Transportation infrastructure
	High & extra high voltage cables		Power utilities, Grid operators, Energy-intensive industries	Electric power transmission, Offshore wind Farms, Supporting smart grids for load balancing
Control & instrumentation cables			Manufacturing plants, Energy facilities, Oil & gas corporations	Industrial automation, Power plant applications, Oil & gas industry, Mining operations

Harnessing cables	Automotive wiring harnessing	Automotive OEMs, EV manufacturers, Autonomous vehicle developers	Advanced driver assistance systems, Display & audio systems
	Wiring harnessing	Consumer appliance manufacturers, Electronics producers, Aerospace companies	Appliances, Wiring aircraft systems, Consumer electronics
	Industrial equipment harnessing	Industrial machinery manufacturers, Robotics firms, Power equipment suppliers	Heavy machinery, Robotics, Interconnection transformers & generators

3.1 Market size of the global wires & cables market

The wires & cables market was valued at ~US\$ 231.8B in CY25, growing at a CAGR of ~5.3% from ~US\$ 161.1B in CY18. The market is poised for growth, driven by the increasing adoption of smart grids, which leverage advanced technologies for efficient electricity transmission. As urbanisation, industrialisation, and population growth accelerate, the need for reliable power distribution is rising, particularly in regions such as the Asia Pacific & the Middle East.

Market size of the global wires & cables market
(US\$ B, CY18-30P)



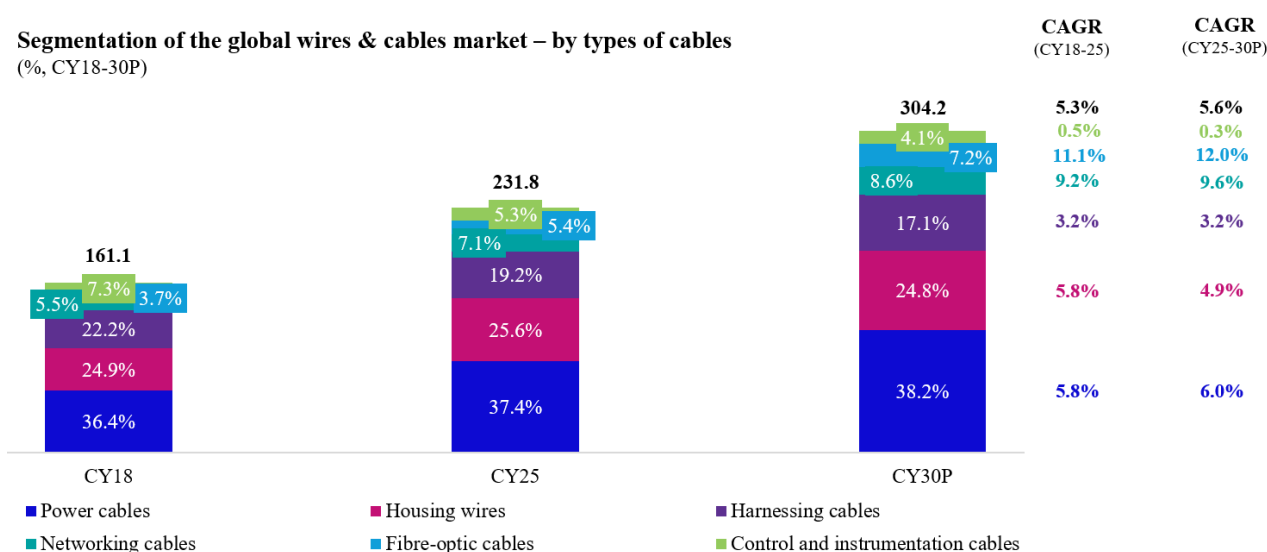
The market is projected to sustain growth & reach ~US\$ 304.2B by CY30, with an anticipated CAGR of ~5.6% during CY25-30. Key drivers of this growth include increasing adoption of fibre-optic cables, advancements in renewable energy infrastructure, and the global rise of smart city projects. Additionally, heightened demand of EVs and the integration of IoT technologies is expected to provide additional momentum for market growth.

3.1.1 Segmentation of the global wires & cables market - by types of cables

The key segments of the global wires & cables market are:

- The largest segment is power cables with a ~37.4% share valued at ~US\$ 86.7B in CY25. The growth is primarily driven by rapid urbanisation and increased investments in renewable energy.
- Housing wires account for ~25.6% of the market & were valued at ~US\$ 59.3B in CY25. These are primarily used for electrical installations in residential and commercial buildings.
- Harnessing cables, including automotive and industrial wiring harnesses, makes up ~19.2% of the market with a valuation of ~US\$ 44.5B in CY25, supported by the growth of electric vehicles and advancements in industrial machinery.
- Networking cables account for ~7.1% of the total wires and cables market at a value of ~US\$ 16.6B in CY25. This segment is projected to grow at a CAGR of ~9.6%, reaching ~US\$ 26.2B by CY30.
- Fibre-optic cables account for ~5.4% of the total wires and cables market at a value of ~US\$ 12.4B in CY25. As the fastest-growing market, it is projected to achieve a CAGR of ~12.0%, reaching ~US\$ 21.9B by CY30. This growth is driven by the rapid deployment of 5G networks, fibre-to-the-home installations, and increasing demand for high-speed internet and data connectivity.
- Control and instrumentation cables have a market share of ~5.3% and are valued at ~US\$ 12.3B, which cater to industrial automation and process industries.

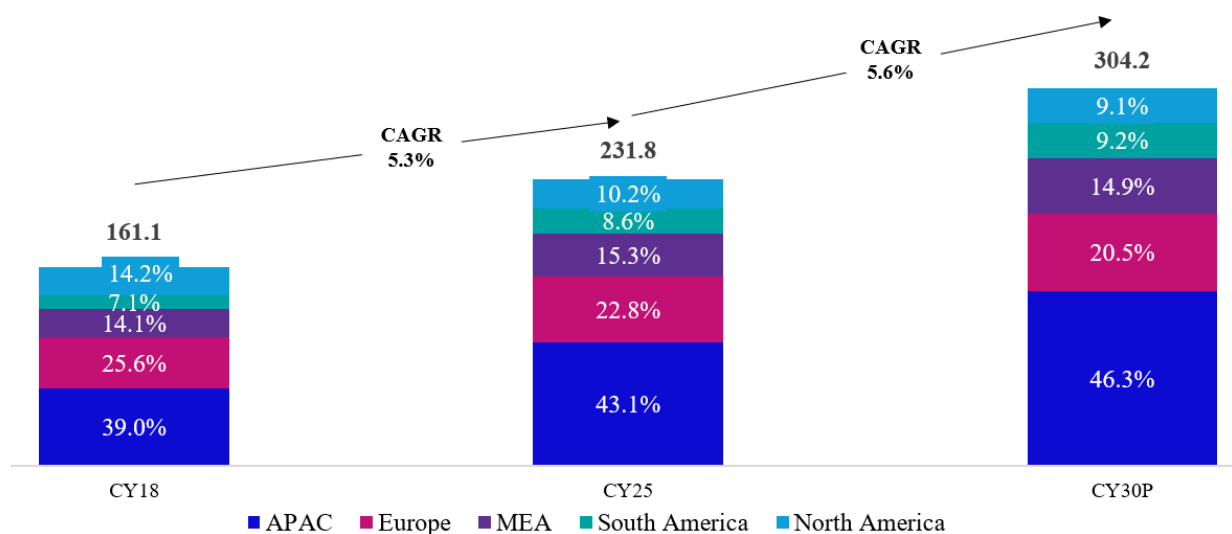
Segmentation of the global wires & cables market – by types of cables (%, CY18-30P)



Types of cables	CY18 (US\$ B)	CY25 (US\$ B)	CY30 (US\$ B)	CAGR (CY18-25)	CAGR (CY25-30P)
Power cable	58.6	86.7	116.2	5.8%	6.0%
Housing Wires	40.1	59.3	75.4	5.8%	4.9%
Harnessing Cables	35.7	44.5	52.0	3.2%	3.2%
Networking cables	8.9	16.6	26.2	9.2%	9.6%
Fibre-optic cables	5.9	12.4	21.9	11.1%	12.0%
Control and instrumentation cables	11.8	12.3	12.5	0.5%	0.3%

3.1.2 Segmentation of the global wires & cables market - by regions

Segmentation of the global wires & cables market - by regions (%, CY18-30P)



Regions	CY18 (US\$ B)	CY25 (US\$ B)	CY30(US\$ B)
APAC	62.7	99.9	140.8
Europe	41.4	52.9	62.4
MEA	22.7	35.4	45.3
North America	22.9	23.7	27.7
South America	11.4	19.9	28.0

The trends for the global wires and cables market segmented by regions are:

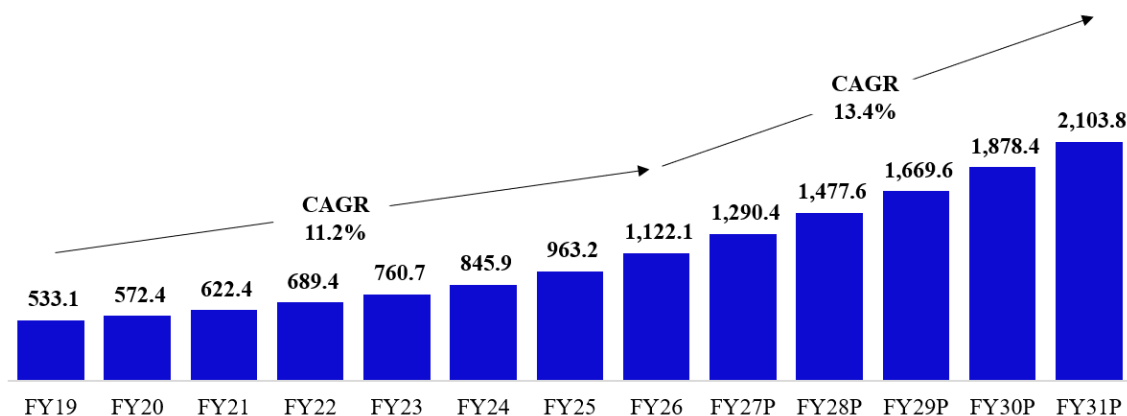
- APAC is the leading region accounting for ~43.1% of the share in CY25, where the expansion is primarily driven by the booming telecommunications sector, including mobile networks, broadband, and data centres.
- Europe is the second biggest market with a share of ~22.8%, and this growth is fuelled by rapid technological advancements, rapid urbanisation, large-scale infrastructure projects, regulatory initiatives, and a focus on energy efficiency and sustainability.
- MEA captures ~15.3% of the market, where the region remains focused on medium-voltage production, with few players in the high-voltage segment.
- North America holds a share of ~10.2% while South America holds ~8.6% share in CY25. South America has the fastest growing market with a projected CAGR of ~7.2% from CY25-30. This growth is driven by growing consumer interest in electric vehicles, rising demand for EV-specific cables, and the adoption of advanced wiring solutions.

3.2 Market size of the Indian wires & cables market

The India wires and cables market reached ~INR 1,122.1B in FY26, up from ~INR 533.1B in FY19, reflecting a CAGR of ~11.2%. The market is projected to increase to ~INR 2,103.8B by FY31, growing at a CAGR of ~13.4% from FY26 to FY31. The sustained growth is fuelled by several key drivers, including continued investments in power transmission and distribution infrastructure, increasing renewable energy integration, and the expansion of telecommunications infrastructure.

Market size of the Indian wires & cables market

(INR B, FY19-31P)



Source(s): IILattice analysis

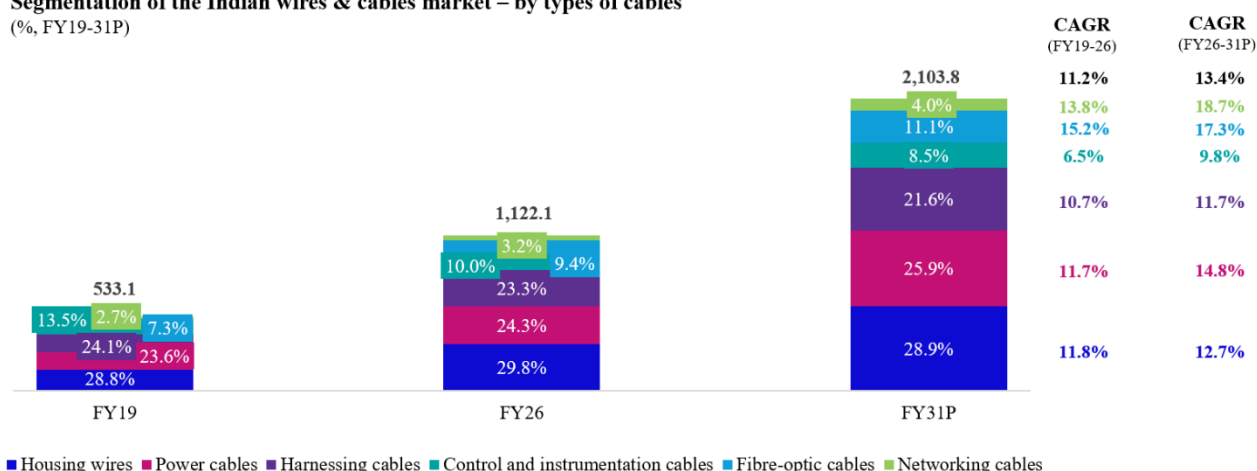
Indian wires & cables market						
FY19	FY21	FY26	FY31	CAGR (FY19-26)	CAGR (FY21-26)	CAGR (FY26-31P)
533.1	622.4	1,122.1	2,103.8	11.2%	12.5%	13.4%

The increasing deployment of solar and wind energy projects is contributing to demand, as these require robust interconnections and transmission systems. As a result, the need for electric wires and cables, which are critical for transmitting power from generation sites to grids and consumers, is rising, further propelling market growth. Additionally, the growing adoption of high-voltage direct current underground cables, ideal for long-distance, high-voltage transmission, is helping improve power distribution efficiency and reduce transmission losses.

Alongside this, the demand for advanced networking cables, essential for maintaining seamless data transfer and communication in commercial and industrial applications, is also on the rise. Moreover, the expanding need for broadband connectivity is accelerating the deployment of fibre-optic and ethernet / LAN cables, which are vital for high-speed internet access and the infrastructure required to support smart technologies and digital transformation.

3.2.1 Segmentation of the Indian wires & cables market - by types of cables

Segmentation of the Indian wires & cables market – by types of cables
(%, FY19-31P)



Types of cables	FY19 (INR B)	FY26 (INR B)	FY31 (INR B)	CAGR (FY19-26)	CAGR (FY26-31P)
Housing wires	153.5	334.4	608.0	11.8%	12.7%
Power cables	125.8	272.7	544.9	11.7%	14.8%
Harnessing cables	128.5	261.5	454.4	10.7%	11.7%
Control and instrumentation cables	72.0	112.2	178.8	6.5%	9.8%
Fibre-optic cables	39.1	105.0	233.1	15.2%	17.3%
Networking cables	14.5	35.9	84.5	13.8%	18.7%

The wires and cables market in India is experiencing robust growth. The key trends by type of cables are:

- Housing wires are dominating the market with a share of ~30% and valued at ~INR 334B in FY26, driven by urbanisation, real estate development, and initiatives like Housing for All.
- The power cables market comes next, holding a share of ~24% as of FY26 and is expected to continue leading with the growth, which is driven by urbanisation and renewable energy projects.
- Following closely, harnessing cables is another growing segment constituting a share of ~23% in FY26. The harnessing cable market is fuelled by the growing EV market and demand from the aerospace and renewable energy sectors.
- The control and instrumentation cables market have a share of ~10% in FY26. This market is benefiting from the rise of industrial automation and expanding renewable energy projects.
- The fibre-optic cables market, valued at ~INR 105.0B (~9% share) in FY26, is expected to reach ~INR 233.1B at a CAGR of ~17.3% in FY26-31. This growth is driven by the surge in high-speed internet demand, 5G deployments, and global digitalisation trends.
- The networking cables market is gaining traction, valued at ~INR 35.9B (~3% share) in FY26, and is expected to reach ~INR 84.5B by FY31. It is growing at a CAGR of ~18.7% from FY26 to FY31, fastest among all the other segments. This growth is driven by the fixed broadband connections, increasing adoption of data centres, IoT applications, and enterprise networking solutions.

3.2.2 Segmentation of the Indian wires & cables market - by organised and unorganised

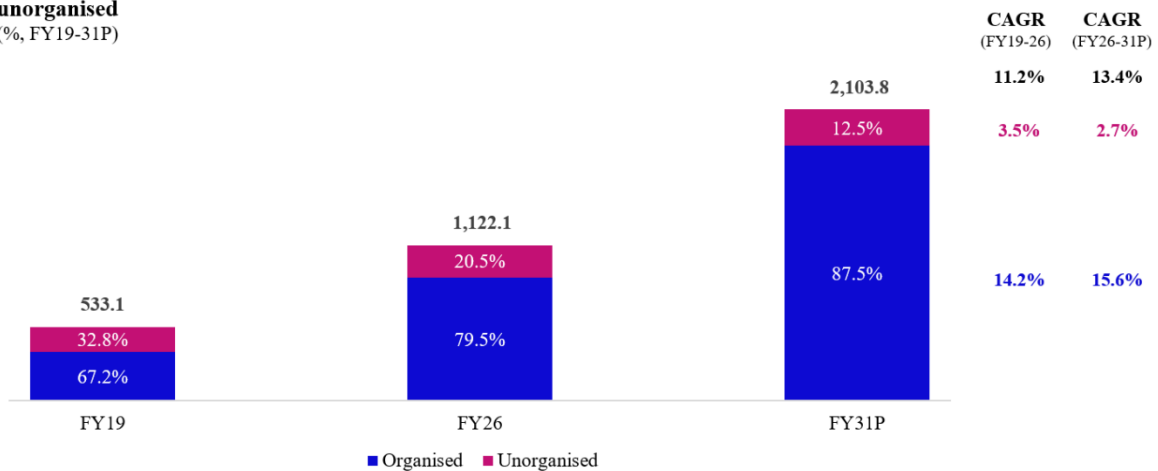
The wires and cables market is characterised by organised and unorganised segments, particularly in developing regions like India.

The organised segment:

- Consists of well-established players with robust operations that adhere to stringent quality standards, utilize advanced manufacturing technologies, and often meet international certifications.
- Focuses on delivering reliable, high-quality products backed by brand warranties, consistent performance, and dedicated customer support.

- Exhibits structured distribution networks and compliance with safety regulations that further bolsters credibility in the market.

Segmentation of the Indian wires & cables market – by organised and unorganised
(%, FY19-31P)



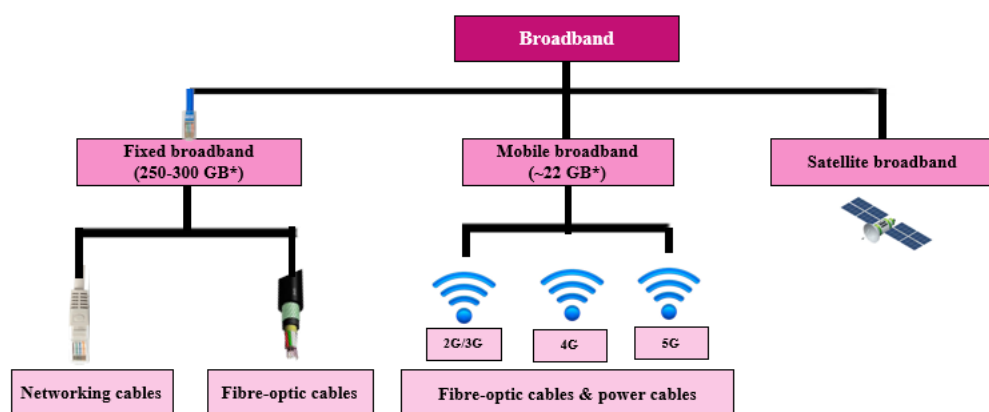
In contrast, the unorganised segment:

- Comprises of smaller manufacturers and local vendors that prioritize cost-effective production methods.
- Predominantly cater to regional markets and small-scale projects, where affordability often takes precedence over quality.
- Typically lacks the infrastructure, technical expertise, and adherence to safety and quality standards that define the organised segment

This distinction is particularly evident in markets like India, where the gap between organised and unorganised segments is marked by differences in quality, pricing, and distribution. By FY26, the organised segment accounted for ~79.5% of the market, with the unorganised segment comprised ~20.5%. This significant gap underscores the organised segment's commitment to delivering reliable, certified products backed by brand warranties and customer support. Furthermore, as consumer awareness increases about the risks of low-quality wires, especially in residential and commercial buildings, there is a growing shift towards branded, certified products offered by organised players, which are better equipped to meet safety and regulatory standards.

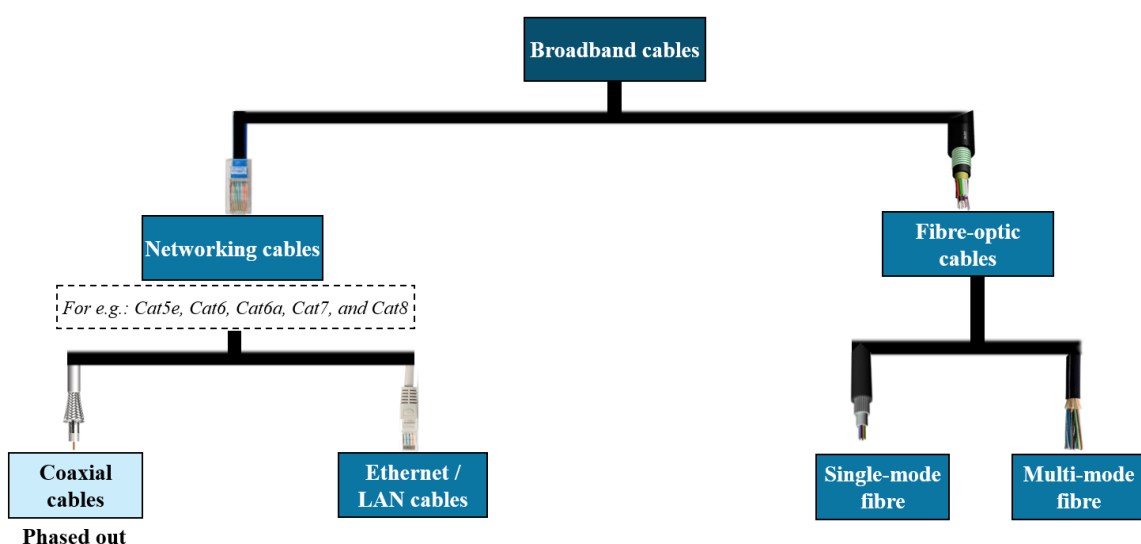
3.3 Overview of the broadband (networking and fibre-optic cables) cables market

The broadband cables market encompasses a wide array of cable types essential for data transmission. These cables play a fundamental role in enabling internet connectivity, voice communication, video surveillance, and local area networks, all of which are crucial components of modern digital infrastructure. As digital services expand and mobile internet usage continues to rise, the broadband market remains a central component of the overall broadband cable market, driving forward the global demand for high-speed connectivity. Broadband can be classified into fixed broadband, mobile broadband & satellite broadband.



Note: In mobile & satellite broadband networking cables are used for infrastructure requirements, *Estimated average monthly data usage per subscription in India as of CY24

As the demand for faster and more reliable internet connection increases globally, these cables serve as the backbone of both residential and business networks, providing the necessary infrastructure for real-time data exchange and seamless connectivity. As of CY25, estimated average monthly data consumption usage per subscription for fixed broadband is ~250-300 GB in comparison to ~24 GB for mobile broadband. Fixed broadband typically relies on cables to deliver high-speed connectivity, as mobile infrastructure alone cannot provide the necessary capacity and reliability. This makes cables indispensable for meeting the growing demand for stable internet services.



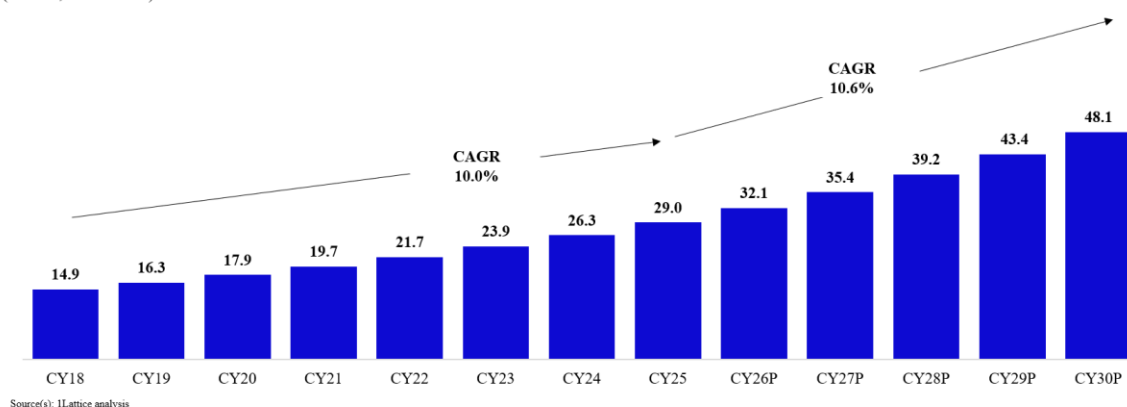
In the broadband cables market, networking cables & fibre-optic cables are used. Broadband cables are used for transmitting high-frequency signals and wide bandwidth data, allowing simultaneous transmission of multiple signals or data streams over a single channel. These cables support applications requiring large amounts of data, such as streaming, online gaming, and video conferencing.

3.3.1 Market size of the global broadband (networking and fibre-optic cables) cables market

The broadband cables market is focused on delivering high-speed internet and other communication services through fibre-optic cables, and networking cables. These cables are essential for delivering broadband services to residential, commercial, and industrial users, supporting applications like streaming, online gaming, IoT, cloud computing, and smart city developments.

Types of cables	Global market size, CY25	Projected CAGR, CY25-30P
Networking cables	16.6	9.6%
Fibre-optic cables	12.4	12.0%
Broadband cables market (Total)	29.0	10.6%

Market size of the global broadband (networking and fibre-optic cables) cables market
(US\$ B, CY18-30P)



From CY18-25, the global broadband cables market grew at a CAGR of ~10.0% & was valued at ~US\$ 29.0B by CY25. It is projected to increase at a CAGR of ~10.6% from CY25-30 to ~US\$ 48.1B by CY30. The growth drivers are the increasing demand for high-speed internet connectivity across both residential and commercial segments, advancements in network infrastructure, and the rollout of fibre-optics technologies. As the digital landscape evolves, there is a rising need for faster, more reliable data transmission capabilities to support emerging technologies such as 5G, cloud computing, IoT devices, and video streaming services.

Global supply chain disruptions and China's zero-COVID policy (a strict public health approach involving lockdowns, travel restrictions, and mass testing to eliminate all COVID-19 cases) have prompted companies to adopt the China-plus-one strategy, leading to diversification of manufacturing bases. India has emerged as a promising alternative, alongside Vietnam and Malaysia, due to its low production costs, favourable business environment, and infrastructure development. Similarly, the Europe-plus-one strategy is gaining momentum, as European industries grapple with high energy costs and inflation, positioning India as a competitive destination for manufacturing. With higher price realisations in the US and European markets compared to domestic ones, India is solidifying its position as a competitive global manufacturing hub.

This shift away from traditional manufacturing hubs presents a significant opportunity for Indian manufacturers in the wires and cables industry. By obtaining quality certifications and adhering to international standards, Indian companies can strengthen their position as a global manufacturing hub. This transition allows Indian manufacturers to expand their presence in developed markets, capture growing demand, and gain market share from established suppliers.

3.3.1.1 Segmentation of the global broadband cables market - by types of cables

The broadband cables market broadly consists of two types of cables:

- **Networking cables**

Networking cables are essential for wired data transmission across local and wide area networks, connecting devices such as computers, routers, and printers. Common types like Cat5 through Cat8 provide stable, high-speed connections for home, office, and larger infrastructures like data centres. These cables are designed to reduce interference while supporting activities such as internet browsing, gaming, and video streaming while ensuring high bandwidth and reliable performance for seamless communication. The networking cables market was valued at ~US\$ 16.6B in CY25, accounting for ~57.1% of the global broadband cables market. It is projected to grow to ~US\$ 26.2B in CY30 at a CAGR of ~9.6%.

- **Fibre-optic cables**

Fibre-optic cables had a share of ~43% in the global broadband cables market as of CY25. These cables are made of fine glass or plastic strands, transmit data via light pulses, offering higher bandwidth and faster speeds than copper cables. With minimal signal loss over long distances, they are ideal for high-speed internet, 5G networks, cloud computing, and telecommunications infrastructure. The fibre-optic cables market was valued at ~US\$ 12.4B in CY25, accounting for ~42.9% of the global broadband cables market. It is projected to grow to ~US\$ 21.9B in CY30 at a CAGR of ~12.0%.

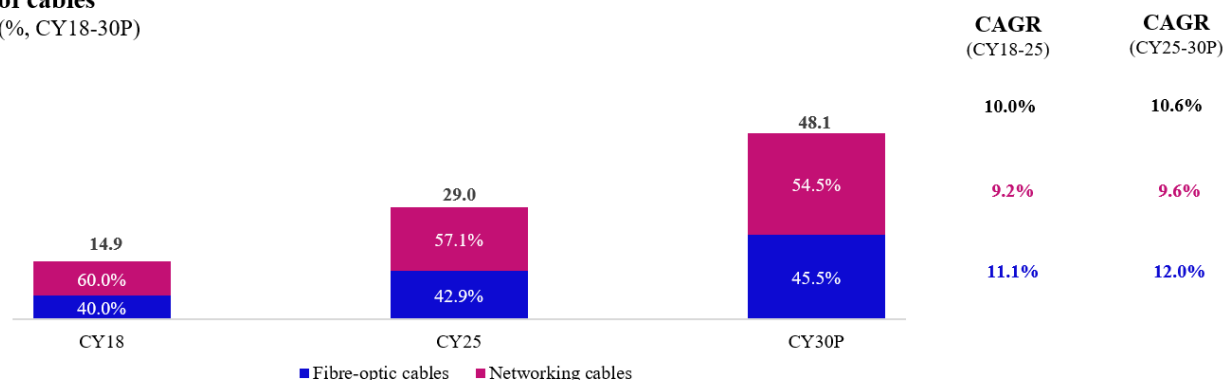
These cables are differentiated into two types:

- **Single-mode fibre:** These fibres use a small core size to transmit a single light ray or mode of light. This allows it to carry signals over long distances with minimal loss or dispersion.

- **Multi-mode fibre:** They have a larger core size, allowing multiple light rays to travel simultaneously. This can cause more signal dispersion, limiting the transmission distance compared to single-mode fibre.

Segmentation of the global broadband cables market – by types of cables

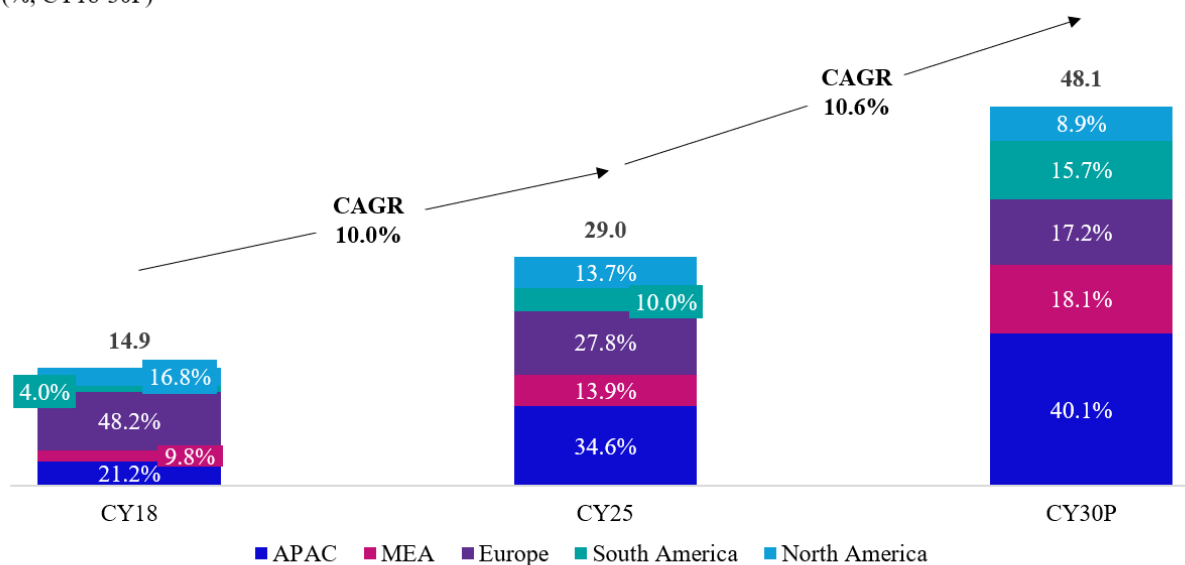
(%, CY18-30P)



3.3.1.2 Segmentation of the global broadband cables market - by regions

Segmentation of the global broadband cables market – by regions

(%, CY18-30P)



Regions	CY18 (US\$ B)	CY25 (US\$ B)	CY30 (US\$ B)	CAGR (CY18-25)	CAGR (CY25-30P)
APAC	3.2	10.0	19.3	17.7%	14.1%
Europe	7.2	8.1	8.3	1.7%	0.5%
MEA	1.5	4.0	8.7	15.0%	16.8%
South America	0.6	2.9	7.5	25.2%	20.9%
North America	2.5	4.0	4.3	6.9%	1.5%

The key trends in the global broadband cables market segmented by regions are:

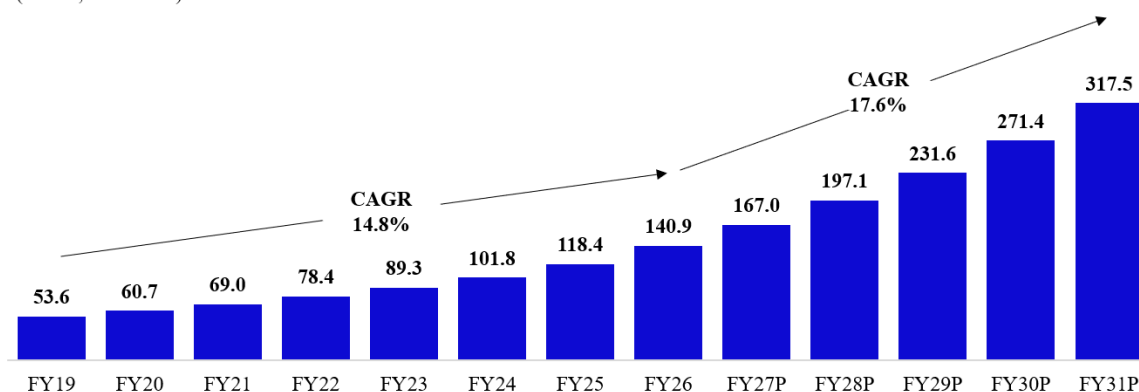
- APAC accounts the maximum market share of ~34.6% in CY25. This is driven by rapid urbanisation and industrialisation in countries such as China and India. Significant investments in 5G and fibre-optic networks are being made to meet the increasing demand for high-speed internet in this region.

- This is followed by Europe, which accounted for ~27.8% of the market, driven by the expansion of the IoT, demand for high speed internet, and smart city initiatives.
- The MEA accounts for a market share of ~13.9% in CY25, with expansion fuelled by government initiatives like Smart Africa, along with demand for satellite broadband and wireless connectivity in remote areas where traditional fixed-line infrastructure is limited. Additional infrastructure investments, including new data centre construction and improved connectivity in both urban and rural areas, are also contributing to the region's growth.
- North America holds a share of ~13.7%, while South America holds ~10.0% share in CY25. South America has the fastest growing market with a projected CAGR of ~20.9% from CY25-30. This growth is driven by rising internet usage resulting and increased infrastructural investments in the broadband cables market.

3.3.2 Market size of the Indian broadband (networking and fibre-optic cables) cables market

India's broadband cables market is projected to grow at a CAGR of ~17.6% from FY26-31. The market is valued at ~INR 140.9B in FY26 and is expected to grow to ~INR 317.5B by FY31. Growth is driven by digital transformation, 5G rollout, rising broadband penetration, affordable data plans, and expanding fibre-to-home networks. By FY26, India's total broadband subscriber base reached ~1.1B, increasing 5.8% from December 2025, while ~2.2L Gram Panchayats were made service-ready under BharatNet as of February 2026, supporting the expansion of broadband and optical-fibre connectivity across rural India.

Market size of the Indian broadband (networking and fibre-optic cables) cables market
(INR B, FY19-31P)

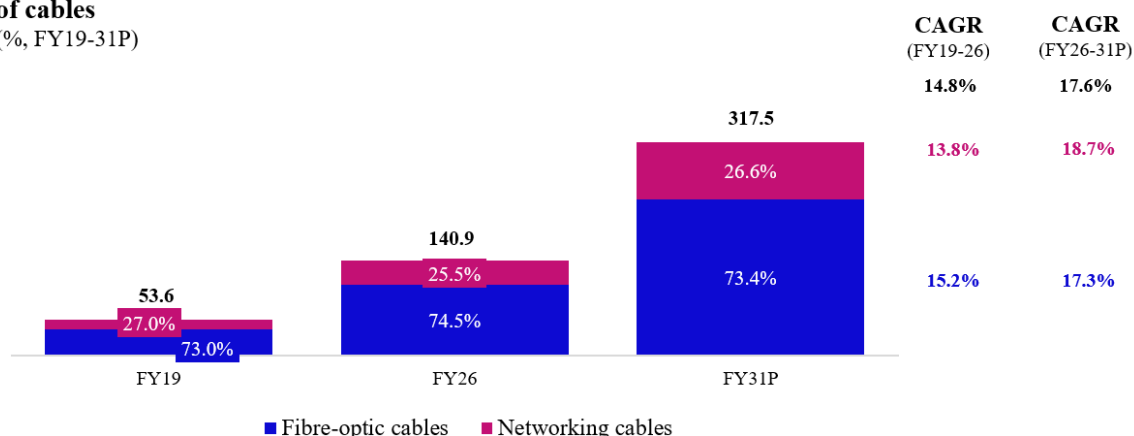


Source(s): IILattice analysis

Types of cables	Indian market size (INR B), FY26	Projected CAGR (%), FY26-31P
Networking cables market	35.9	18.7%
Fibre-optic cables market	105.0	17.3%
Broadband cables market	140.9	17.6%

3.3.2.1 Segmentations of the Indian broadband cables market - by types of cables

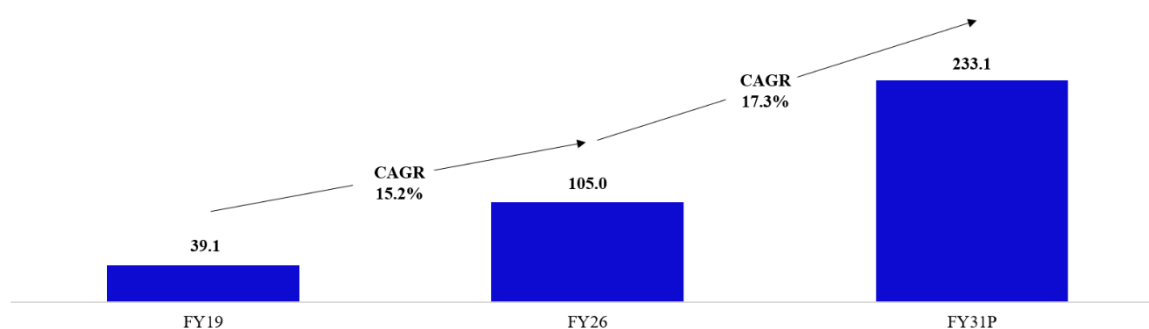
Segmentation of the Indian broadband cables market – by types of cables
(%, FY19-31P)



Source(s): ILattice analysis

In India, fibre-optic cables had a market share of ~74.5% of the broadband cables market in FY26. The networking cables segment accounted for ~25.5% of the market in FY26. The share of fibre-optic cables is projected to be ~73.4% of the total Indian broadband cables market by FY31.

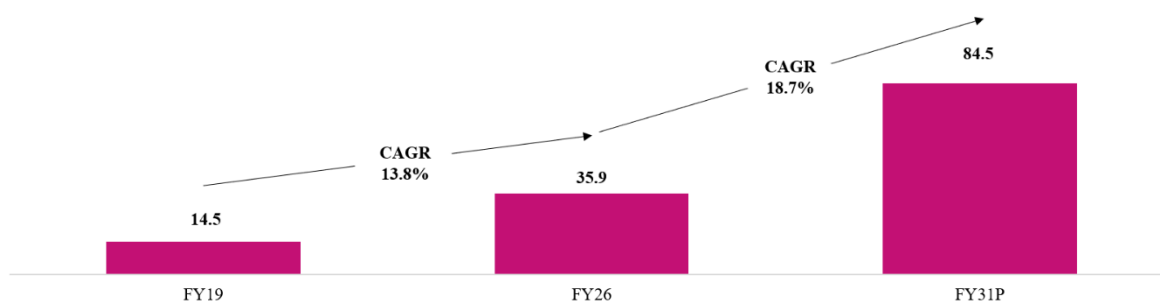
Indian fibre-optic cables market
(INR B, FY19-31P)



Source(s): ILattice analysis

From FY19-26, the fibre-optic cables market grew at a CAGR of ~15.2% and is at ~INR 105.0B in FY26. It is projected to increase at a CAGR of ~17.3% from FY26-31 to reach ~INR 233.1B by FY31.

Indian networking cables market
(INR B, FY19-31P)



Source(s): ILattice analysis

The networking cables market was valued at ~INR 20.6B in FY22 and increased to ~INR 35.9B in FY26. It is projected to grow at a CAGR of ~18.7% from FY26-31 to reach ~INR 84.5B in FY31.

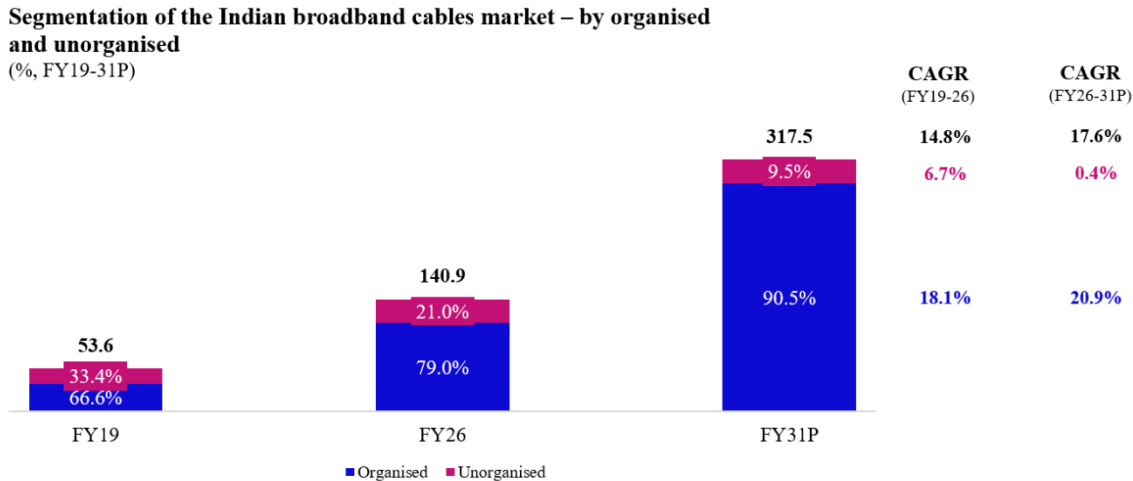
The Indian broadband cables market consists of manufacturers & resellers. Manufacturers are the companies that manufacture these cables which are then procured either by direct end-users or resellers. Resellers brand the cables with their brand name and then resell these cables in the market. With a revenue of ~INR 9.17B, Orient Cables (India) Ltd is one of India’s top 3 players in the networking cables Industry with a market share of ~25.5% in FY26.

3.3.2.2 Segmentations of the Indian broadband cables market - by organised and unorganised

The Indian broadband cables market can be characterised by two types of players:

- The organised segment:
 - It is led by well-established companies that hold licenses for advanced technologies, industry certifications, and exclusive partnerships.
 - It offers products that are differentiated through technological innovations, compliance with regulatory standards, and strong brand recognition, supported by extensive marketing and a wide distribution network.
- In contrast, the unorganised segment:
 - It consists of smaller or less established companies that typically lack licenses for advanced technologies or industry certifications.
 - The products are more generic, with limited technological differentiation and a narrower market reach, often lacking the brand recognition, consumer trust, and regulatory compliance of branded alternatives.

In India, the organised segment holds ~79% of the market, while the unorganised segment represents ~21% of the market in FY26. This distinction is present due to factors like white labelling, which involves manufacturers producing cables that are rebranded and sold by other companies, allowing resellers to market these products without handling their design or production.



3.3.3 Major end users in the broadband (networking and fibre-optic cables) cables market

The broadband cables market serves diverse end-user segments, driven by the growing demand for high-speed internet and advanced connectivity solutions.

- **Residential sector:** Households increasingly rely on broadband cables for streaming, online gaming, remote work, and IoT-powered smart homes. These cables ensure uninterrupted, high-speed connectivity for day-to-day activities.
- **Commercial sector:** Offices, retail spaces, and coworking hubs depend on broadband cables for operations like video conferencing, cloud computing, and VPN connectivity. Reliable broadband is critical for seamless communication and data sharing.
- **Industrial sector:** Manufacturing units and industries leverage broadband cables to enable automation, IoT integration, and real-time monitoring. These cables facilitate smart factory operations and enhance productivity.
- **Telecom providers:** Telecom companies are major users of broadband cables for building and expanding fibre-optic and 5G networks. These cables support infrastructure for high-speed internet and large-scale data transmission.
- **Government and public infrastructure:** Broadband cables are integral to smart city initiatives, public Wi-Fi projects, and e-governance platforms, supporting connectivity for urban and rural development.

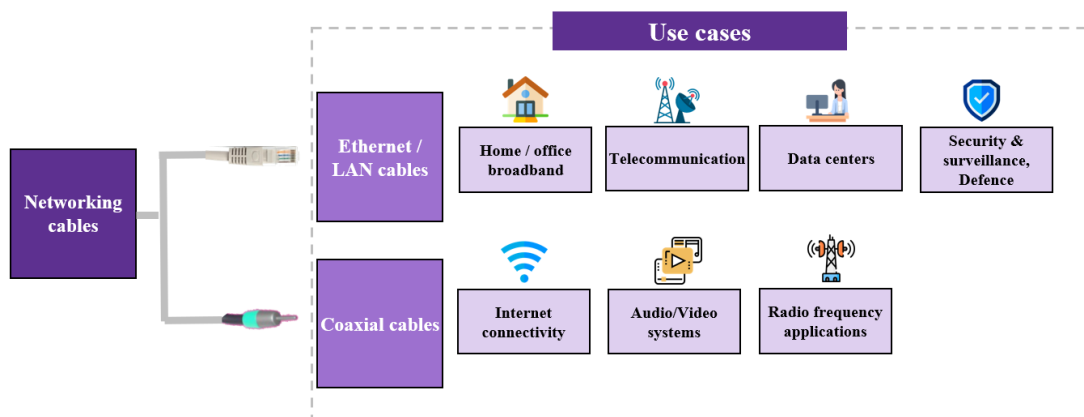
- **Educational institutions:** Schools, colleges, and universities require broadband cables to enable e-learning, virtual classrooms, and digital research infrastructure, ensuring uninterrupted academic activities.
- **Defence:** Broadband cables are used for secure communication, advanced surveillance, and operational coordination. High-speed and reliable connectivity is crucial for command centres, remote operations, and integration of cutting-edge technologies in defence infrastructure.

This extensive usage highlights the critical role of broadband cables in meeting connectivity needs across various domains.

3.3.4 Use cases of networking cables in the broadband cables market

The networking cables play a crucial role in enabling efficient communication and connectivity across various sectors. From supporting broadband connections in homes and offices to facilitating data transfer, power supply, and telecommunication services, these cables are essential for both residential and commercial infrastructures. The growing demand for seamless communication and connectivity is driving the adoption of these cables across industries such as telecommunications, security, manufacturing and IT.

Additionally, the rise of IoT devices and surveillance systems is driving demand for smart homes and offices, both of which rely heavily on robust cabling infrastructure. This is contributing to the growth of multiple sectors, including Internet of Things (IoT), electronic surveillance, building automation, smart homes, smart offices, industrial automation, and data centers. These sectors are increasingly adopting networking cables to support automation, real-time monitoring, and enhanced security. The combined growth of these sectors is projected to reach 15-25% between FY26 and FY31, further driving demand for high-performance cabling solutions.



4. Overview of fixed broadband market

4.1 Understanding reasons for low fixed broadband penetration and growth prospects

The fixed broadband market is undergoing rapid transformation as demand for reliable, high-speed internet grows across residential, commercial, and industrial sectors. Although penetration remains low compared to mobile broadband, advancements in technology and regulatory reforms are setting the stage for substantial growth.

- **Current Penetration of fixed broadband:** Fixed broadband penetration in India remains below 5%, significantly trailing compared to mobile broadband, which boasts a penetration rate of ~60%. While India has successfully addressed the challenges of mobile broadband, fixed broadband still lags. Low penetration of fixed broadband in India is stemmed from:
 - High infrastructure costs
 - Lengthy cable installation processes
 - Delays caused by complex permit requirements

Mobile broadband, easier and quicker to roll out, has temporarily addressed connectivity demands, bridging the gap until fixed broadband networks could expand. Fixed broadband in India has a significant untapped potential, as the current fixed broadband market is growing at a CAGR of 14.2% from FY19-26, with ~46.5M subscriptions as of FY26. The number of fixed broadband subscribers is expected to grow further, reaching ~110-126M by FY31 at a CAGR of ~19-22% during the same period. This demonstrates the vast growth opportunities for India's fixed broadband market.

- **Future growth potential:** The fixed broadband market is poised for significant growth, driven by innovations in last-mile delivery and increasing consumer demand. Key factors include:

- **5G and Fixed Wireless Access (FWA):** Innovative solutions like AirFiber 5G are addressing last-mile connectivity challenges, enabling faster deployment and reducing lead times compared to traditional fixed-line installations. FWA is accelerating the rollout of fixed broadband, particularly in underserved areas.
- **Growing data consumption:** The rise in data-intensive activities such as remote work, online entertainment, and IoT adoption has highlighted the limitations of mobile broadband, underscoring the need for robust fixed broadband infrastructure.
- **Advancements in cable technologies:** Fibre-optic cables, offering higher speeds and greater bandwidth than traditional copper systems, are driving growth. Technologies such as digital subscriber lines (DSL), fibre-to-the-home (FTTH), and coaxial cables remain critical for providing consistent and high-quality internet services.
- **Rural and remote connectivity:** Hybrid technologies and 5G networks are expanding internet access in rural and remote areas, opening new markets for fixed broadband services.
- **Industry investments:** Leading providers like Reliance Jio and Bharti Airtel are heavily investing in fibre-optic infrastructure. For instance, Bharti Airtel expanded its fibre network from ~0.3M Rkm in FY20 to ~0.4M Rkm in FY25, showcasing the industry's commitment to network upgrades.

Subscriptions	FY19 (In M)	FY26 (In M)	Growth (In %), FY19-26
Fixed broadband	18.4	46.5	152.7%
Mobile broadband	544.9	1,019.4	87.1%
Total broadband subscriptions	563.3	1,065.9	89.2%

As competitive pressures and regulatory factors drive further innovations, the fixed broadband market is expected to see sustained growth. Both developed and developing economies are likely to witness a surge in fixed broadband adoption, fuelled by rising consumer expectations for faster, more reliable, and scalable connectivity.

4.1.1 5G revolutionizing connectivity and transforming industries

The evolution of fixed and mobile broadband in India has been transformative, marked by significant technological advancements and rapid growth.

- Fixed broadband, which initially had limited penetration, has now expanded substantially with initiatives like PM-WANI and increasing fibre-optic cables deployments.
- Mobile broadband has seen an even more dramatic rise, driven by affordable data tariffs, widespread smartphone adoption, and robust network expansion.
- Broadband subscriptions grew from ~563.3M in FY19 to ~1,065.9M in FY26, an impressive ~89% growth.

By Dec 25, the Department of Telecommunications has achieved significant milestones:

- Deployment of 4.3M Rkm of fibre-optic across India
- 1.4M Fibre-To-The-Home (FTTH) connections are commissioned
- ~6,34,955 villages are covered with mobile connectivity including ~6,31,834 villages having 4G mobile coverage

The rollout of 4G technology and the introduction of 5G are connecting rural and remote areas, boosting digital adoption and economic participation. However, challenges persist, including high price competition, regulatory pressures, and the need for extensive infrastructure development. Despite this, India's broadband evolution has significantly contributed to its digital economy, positioning it as a global leader in data consumption and connectivity innovation.

Time period	Technology	Key players	Speed	Connection type	Impact	Challenges
Early 2000s	Digital subscriber line	• BSNL • MTNL	~256 kbps to ~2 Mbps	• Utilizes the same cables as a standard telephone line	• Enabled basic internet access for households • Started the broadband revolution	• No significant rollout or upgrades planned • Relies on outdated DSL tech with limited speeds
Mid 2000s to early 2010s	Cable broadband	• Hathway • Reliance • Tata Indicom, • Local operators	~256 Kbps to ~48 Mbps	• Coaxial cables suitable for delivering both television and internet signals	• Higher speeds than DSL • Easy deployment using cable infrastructure	• Limited to large cities or urban areas • Last-mile connectivity challenges restrict reach • Competes poorly with fibre due to lower speeds and reliability
Mid 2010s to present	FTTH	• BSNL • Airtel • JioFiber • ACT Fibernet	~10 Mbps to ~1 Gbps+	• Fibre-optic cables, for high-speed data transmission	• Revolutionized internet use with HD streaming, remote work, and online gaming	• Growing adoption, but rollout is slow • Last-mile connectivity challenges still exist
2024 & beyond	5G & AirFiber (last mile 5G)	• Jio • Airtel • Vi • BSNL	~100 Mbps to ~1 Gbps (early deployment)	• Use a variety of technologies including fibre re-optics, 5G air interface, and wider bandwidth technologies	• Faster rollout than fibre due to reduced physical cabling • Fills the demand gap in areas with poor fibre access • Expected rapid customer acquisition	• Early stages of rollout, limited 5G infrastructure, requires new equipment

Latest connectivity model

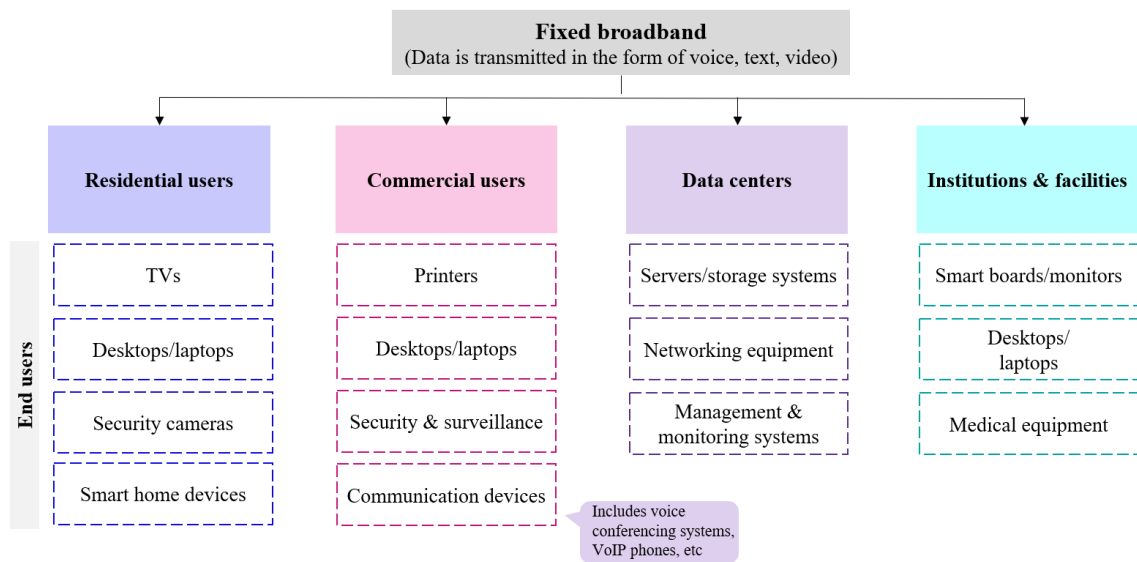
China consistently leads in fixed broadband subscriptions, experiencing substantial growth throughout the period. India, while starting from a lower base, has seen impressive increases in fixed broadband subscriptions, largely driven by government initiatives & private investments. The rapid expansion of fixed broadband infrastructure in India has helped bridge the digital divide, particularly in rural and remote regions. On the other hand, countries like the US, Japan, and the UK show a gradual increase in fixed broadband subscriptions, reflecting a more mature market with slower growth compared to the dynamic pace of expansion seen in India, China and Brazil.

Fixed broadband subscriptions (#M)								
Countries	CY18	CY19	CY20	CY21	CY22	CY23	CY24	CAGR (CY18-24)
India	18.2	19.2	23.0	27.6	33.5	39.5	45.7	16.6%
China	407.0	449.0	484.0	536.0	590.0	636.0	670.0	8.7%
Brazil	31.2	32.9	36.3	41.6	44.1	47.3	51.0	8.5%
US	111.0	114.0	121.0	126.0	128.0	131.0	134.0	3.2%
Japan	41.5	42.5	44.0	45.2	46.1	48.0	NA	3.0%*
UK	26.6	26.9	27.3	27.8	28.1	28.5	29.2	1.6%

Note: *CAGR for Japan is calculated for the period CY18-23

4.1.2 Key end users of fixed broadband

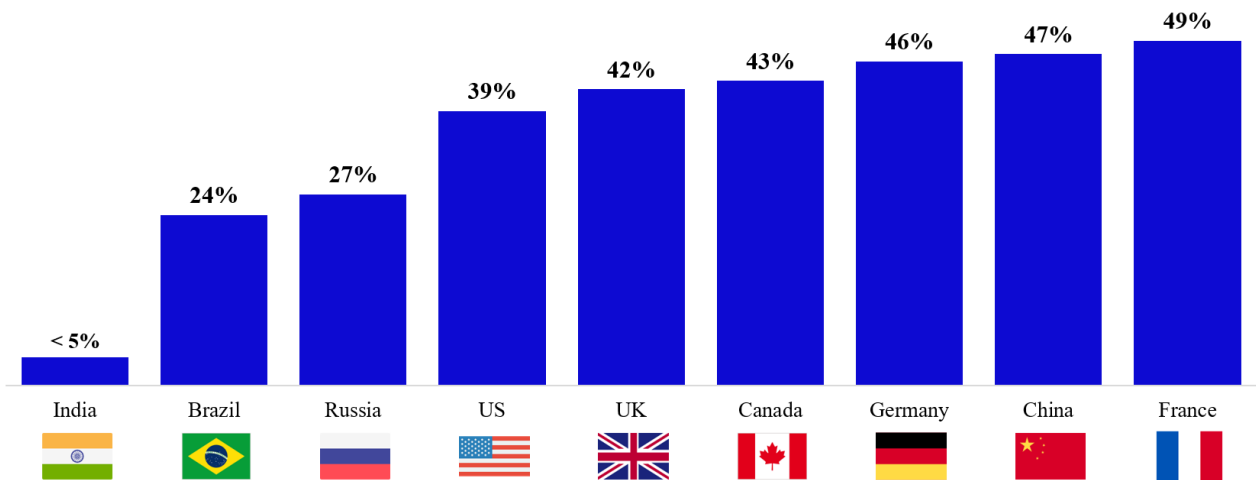
The fixed broadband market serves a diverse range of end users, including residential, commercial, data centres, and institutional clients, each relying on these cables to meet their specific connectivity needs for seamless operations, communication, and data management using both fibre-optic and networking cables. Fibre-optic cables deliver high-speed and long-distance connectivity, while networking cables provide cost-effective and short-range solutions. These cables support critical infrastructure such as networking systems, communication devices, and surveillance systems, ensuring reliable data flow and uninterrupted operations. Additionally, broadband cables are essential for enabling smart technologies, cloud computing, and advanced applications in education, healthcare, and enterprise environments. By forming the backbone of modern digital ecosystems, fixed broadband drive productivity, innovation, and operational efficiency across sectors.



4.1.3 Penetration of fixed broadband

The penetration level of India in the fixed broadband industry has remained notably lower at less than 5%, as of CY24, lagging behind developed nations such as France (~49%), Germany (~46%), Canada (~43%), the UK (~42%), and the US (~39%). Even in comparison to emerging countries like China (~47%), Russia (~27%) and Brazil (~24%), India's penetration level was notably lower.

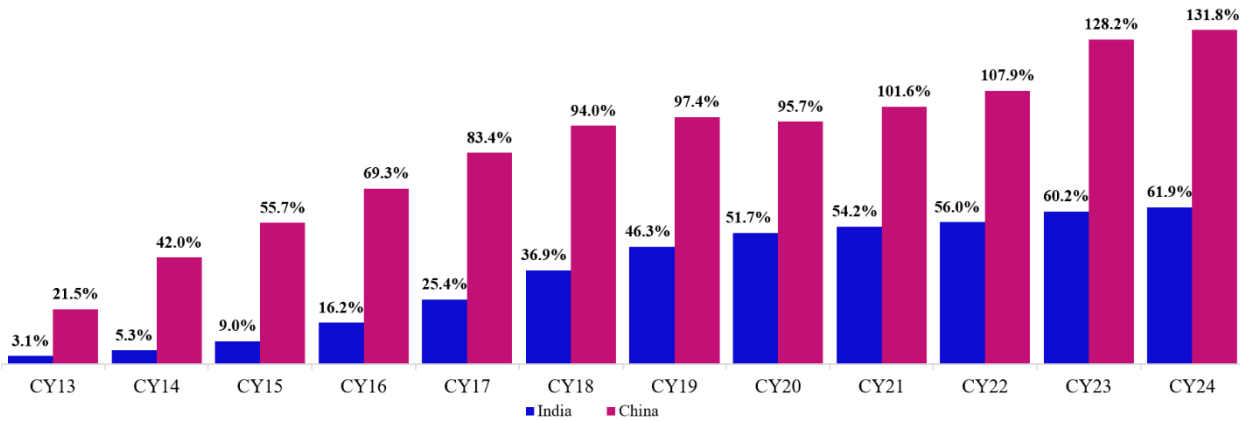
Penetration of fixed broadband
(%, CY24)



Note(s): The penetration of fixed broadband is measured per 100 people
Source(s): International Telecommunication Union, IILattice analysis

Mobile broadband penetration in India has seen a significant upward trajectory between CY13 and CY24, gradually closing the earlier 5–7 year gap with China. In CY16, India’s penetration stood at ~16.2%, comparable to China’s level in CY13 (~21.5%). By CY24, India had reached 61.9% penetration, demonstrating considerable catch-up. On the other hand, China has surpassed ~100% penetration, reaching ~131.8% in CY24. This suggests widespread ownership of multiple mobile broadband subscriptions per person, driven by usage across smartphones, tablets, and other connected devices. This highlights China’s advanced digital ecosystem and higher multi-device connectivity compared to India.

Penetration of mobile broadband
(%, CY13-24)



Note(s): The penetration of mobile broadband is measured per 100 people; China's mobile broadband penetration hit 107.9% in CY22, indicating multiple subscriptions per user
Source(s): International Telecommunication Union, OECD, ILLattice analysis

Key challenges behind low fixed broadband penetration

Infrastructure challenges

- Deploying fixed broadband requires extensive infrastructure, including fibre-optic networks, which can be expensive and time-consuming to install, especially in rural and remote areas

Last-mile connectivity

- Last-mile connectivity remains a challenge in urban areas, where infrastructure upgrades to deliver broadband to individual homes are lacking

Preference for mobile broadband

- In many areas, adoption of mobile broadband (4G/5G) has outpaced fixed broadband due to affordable data plans, faster speeds, and widespread use of affordable smartphones

Urban-rural digital divide

- In urban areas, fixed broadband demand is growing, but providers focus on high-density zones, leaving rural areas with limited fibre access

Competition for local ISPs

- Smaller internet service providers (ISPs) struggle to compete with large players like Jio and Airtel, who focus on mobile services and neglect fixed broadband outside urban centers

Low fixed broadband penetration in India is mainly due to high infrastructure costs, last-mile connectivity challenges, and the preference for mobile broadband. Deploying fixed broadband requires extensive infrastructure which is costly and time-consuming to install. The last-mile connectivity challenge in both densely populated urban areas and remote rural regions has further limited the adoption of fixed broadband. Additionally, mobile broadband has become more popular due to cheaper data plans, faster speeds, and the widespread use of affordable smartphones, making it a more convenient choice.

To mitigate the challenges of low fixed broadband penetration, a multipronged approach is essential. Infrastructural gaps in rural and remote areas can be addressed through large-scale investments in fibre-optic networks, satellite broadband, and data centres, with a focus on reducing Right of Way (RoW) costs for broadband expansion projects. Partnerships with local cable operators (LCOs) and leveraging CSR funds of companies towards broadband expansion can further support last-mile connectivity. Encouraging targeted subsidies or incentives for rural broadband network will help bridge the urban-rural divide. Embracing advanced technologies like Wi-Fi and prioritizing rural and remote areas will strengthen competition and improve access across regions.

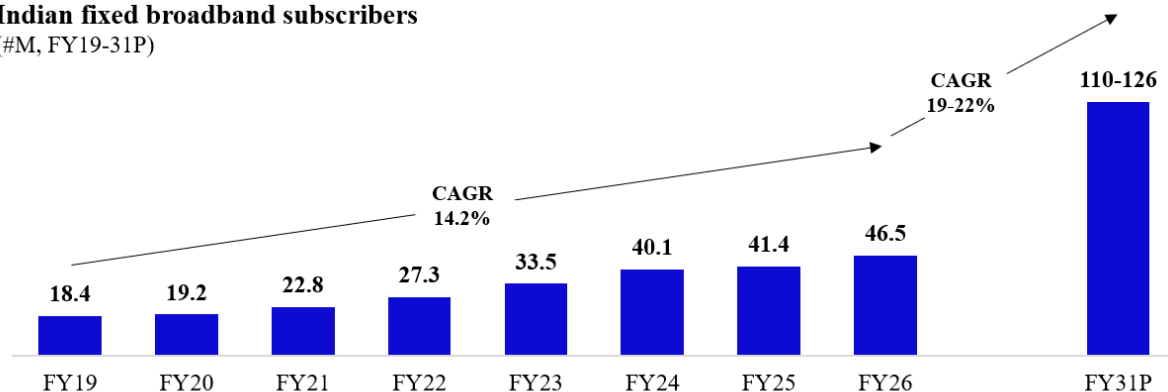
4.2 Fixed & mobile broadband subscription trends over the years

Indian fixed broadband subscribers

The number of fixed broadband subscribers in India increased from ~18.4M in FY19 to ~46.5M in FY26 with a CAGR of ~14.2%. It is expected to further increase to ~110-126M subscribers, with a projected CAGR of ~19-22%. This growth underscores the rising demand for reliable, high-speed internet connectivity across the country, driven by increasing digital adoption, government-led initiatives, and expanding broadband infrastructure.

Indian fixed broadband subscribers

(#M, FY19-31P)



Source(s): Telecom Regulatory Authority of India, IILattice analysis

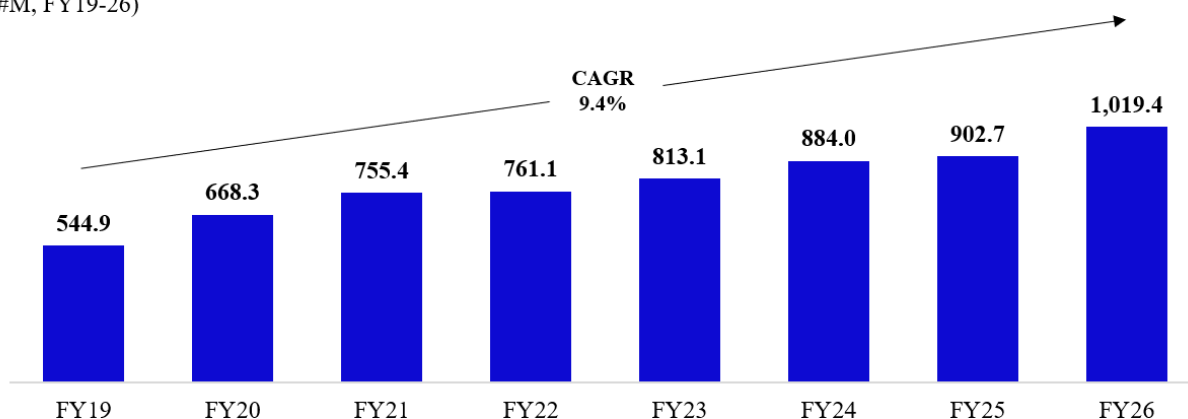
Fixed broadband has become a cornerstone of India's digital transformation, bridging connectivity gaps and fostering economic growth in both urban and rural areas. Investments in broadband infrastructure, fuelled by programs such as BharatNet and the Digital India Mission, prioritize high-capacity fibre-optic networks, middle-mile upgrades like data centres, and last-mile solutions including mobile data, satellite internet, and public Wi-Fi.

Complementing these efforts are supportive policies aimed at accelerating rural broadband expansion, empowering local cable operators, and integrating broadband development into urban planning frameworks. This strategic approach highlights the critical role of broadband in driving India's digital evolution, enabling access to technology and economic opportunities on an unprecedented scale.

Indian mobile broadband subscribers

Indian mobile broadband subscribers

(#M, FY19-26)



Note(s): In mobile & satellite broadband, the user receives wireless signals for accessing internet. However, fiber-optic cables are used during the infrastructure set up
Source(s): Telecom Regulatory Authority of India, IILattice analysis

The increasing demand for mobile broadband services, driven by activities like streaming, gaming, and OTT platforms, has significantly contributed to the growth in mobile broadband subscribers, reaching ~1,019.4M in FY26 at a CAGR of ~9.4%. While the last-mile connectivity in mobile broadband relies on wireless signals, the critical backbone infrastructure is powered by fibre-optic cables. These cables ensure seamless data transmission, enabling telecom providers to meet the growing demand for high-speed internet. As data consumption continues to rise, substantial

investments in fibre-optic infrastructure remain essential for enhancing network capacity and reliability, supporting the shift from voice-centric to data-driven offerings.

4.3 Growing importance of networking cables in infrastructure and connectivity

Importance of networking cables in the industry

Networking cables play a pivotal role in establishing and maintaining data transmission infrastructure for businesses and homes.

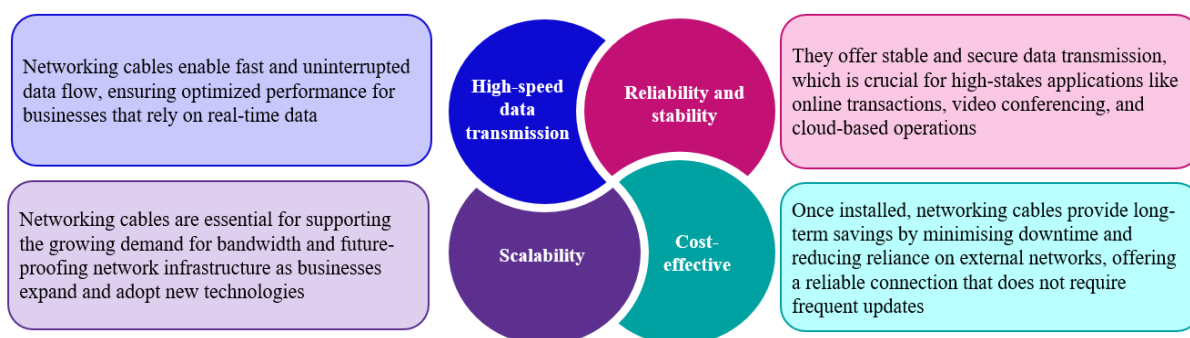
These cables ensure reliable communication within:

- Local area networks (LAN)
- Wide area networks (WAN)
- Other types of networks

Their significance is highlighted by their role in enabling seamless internet access, cloud computing, data sharing, and communication systems that power modern businesses and smart homes.

Networking cables are essential across various industries, enabling efficient data transfer and communication. In telecommunications, they support high-speed internet and mobile networks, while in healthcare, they connect medical devices for real-time monitoring and data sharing. Retail relies on networking cables for secure payment systems and inventory management, and in manufacturing, they enable automation and IoT for enhanced operational efficiency. Across all sectors, networking cables ensure reliable, high-performance connectivity for critical business functions.

Benefits of using networking cables



Comparison of networking cables with alternative solutions:

Networking cables face competition from several alternative technologies such as Wi-Fi, powerline ethernet & fibre-optic wireless that aim to provide similar data transmission capabilities. These include:

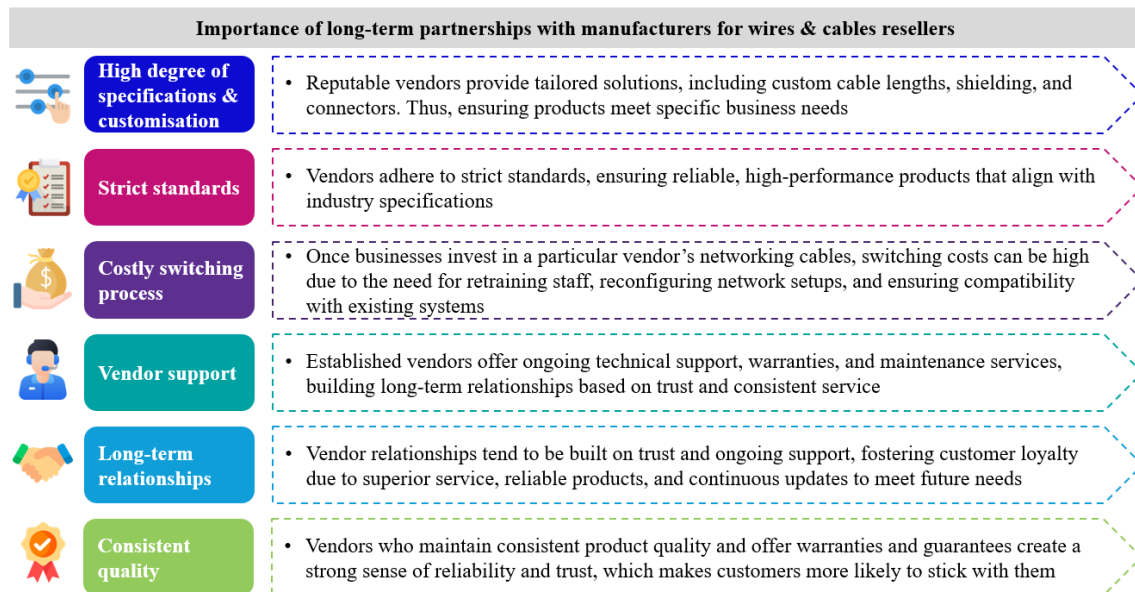
- **Wi-Fi:** Wireless networks offer flexibility and ease of access but are often limited by bandwidth constraints, security vulnerabilities, and reliability challenges, particularly in high-traffic or mission-critical environments.
- **Powerline ethernet:** This technology transmits data over electrical wiring but generally suffers from reduced performance and stability compared to traditional networking cables, making it less ideal for high-speed or large-scale data requirements.
- **Fibre-optic wireless (5G):** While 5G offers the potential for high-speed wireless data transmission, its infrastructure is still in the early stages of development and may face scalability and reliability challenges in comparison to well-established wired alternatives.

Networking cables remain the preferred choice due to their unmatched reliability, performance, and security. They provide consistent, high-speed data transfer with minimal latency, making them essential for data-intensive applications. Trusted vendors enhance their appeal by offering tailored solutions, adhering to strict quality standards, and providing warranties, technical support, and maintenance. These factors foster long-term partnerships and customer loyalty.

Due to the above reasons, it is crucial for networking cable manufacturers and resellers to develop high-quality cables to meet stringent usage requirements. As a result, resellers carefully assess their white-label manufacturers to ensure the highest quality of their products. They often enter long-term partnerships with selected vendors to ensure a continuous supply. For this, the resellers have developed a detailed process for selecting vendors, which includes:

- **Supplier audits and vendor evaluation:** Thorough supplier audits are crucial to ensure product quality and compliance. Vendors must meet these standards, including certifications like UTP, ETL (Networking cables), TSEC (OFC) and UL, to align with industry requirements. Therefore, the networking solutions industry in India has high entry barriers due to, among others, the requirement of robust design and execution capabilities as per the specifications and requirements of the customers.
- **Vendor onboarding process:** Customers typically take ~6 months before onboarding a supplier, which acts as an entry barrier to new players in the industry. The process involves developing specifications as per customer requirements, signing NDAs, and evaluating compliance documents and product samples through rigorous testing. Only suppliers who meet all technical and compliance criteria proceed to commercial discussions and order placement.

It is important for resellers to continue partnerships with their manufacturers because:



4.3.1 Key growth drivers of broadband market

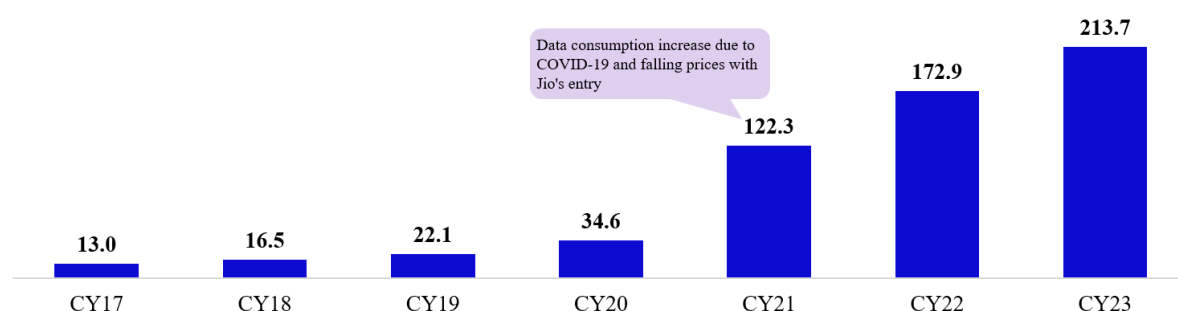
India's broadband sector is experiencing significant growth, driven by rising data consumption and infrastructure investments. Government initiatives like BharatNet and the National Broadband Mission are expanding connectivity, particularly in rural areas, fostering economic growth and digital inclusion.

The shift toward premium broadband services, including fibre-to-the-home connections, is also fuelling growth. Consumers' demand for faster speed and higher data limits is prompting telecom companies to upgrade their networks. Affordable pricing and flexible plans further make broadband an appealing option, while government support continues to drive expansion, especially in rural and remote regions.

Increase in monthly data consumption per fixed and mobile broadband subscription

India has witnessed a remarkable surge in fixed broadband data consumption in recent years. The average data usage per fixed broadband subscription increased from ~13.0 GB per user per month a few years ago to ~213.7 GB in CY23. In the coming year, it is expected that the data consumption on fixed broadband will be ~10 times higher than the average mobile data consumption.

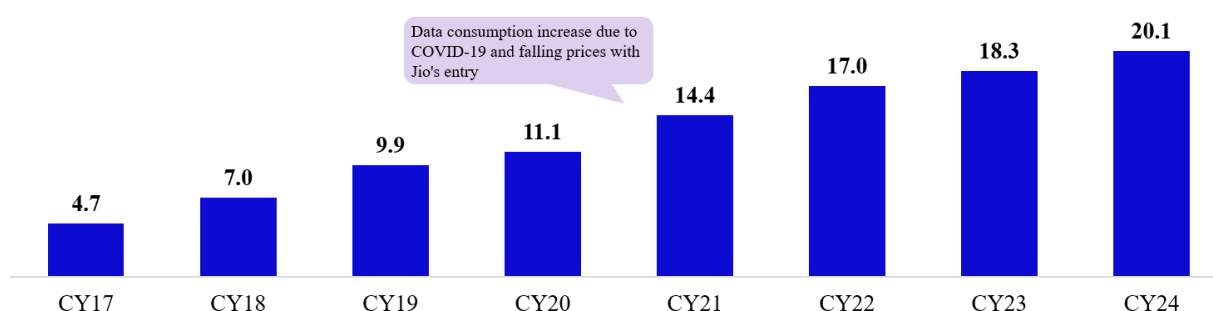
Monthly data consumption per fixed broadband subscription (GB, CY17-23)



Note: GB refers to gigabyte
Source(s): International Telecommunication Union, ILLattice analysis

India's monthly mobile data usage per subscription grew from ~4.7 GB in CY17 to ~20.1 GB in CY24. India continues to show strong growth, supported by low tariffs, expanding 4G/5G networks, and rising smartphone penetration. As a response to the rising demand, telecom companies are making substantial investments in network expansion and infrastructure upgrades, including the adoption of fibre-optic cables. These developments position India to harness broadband connectivity as a catalyst for inclusive growth and digital transformation. As fixed broadband, as a unique and separate product from mobile broadband, has its own set of advantages and challenges that can be effectively addressed using wireline technologies.

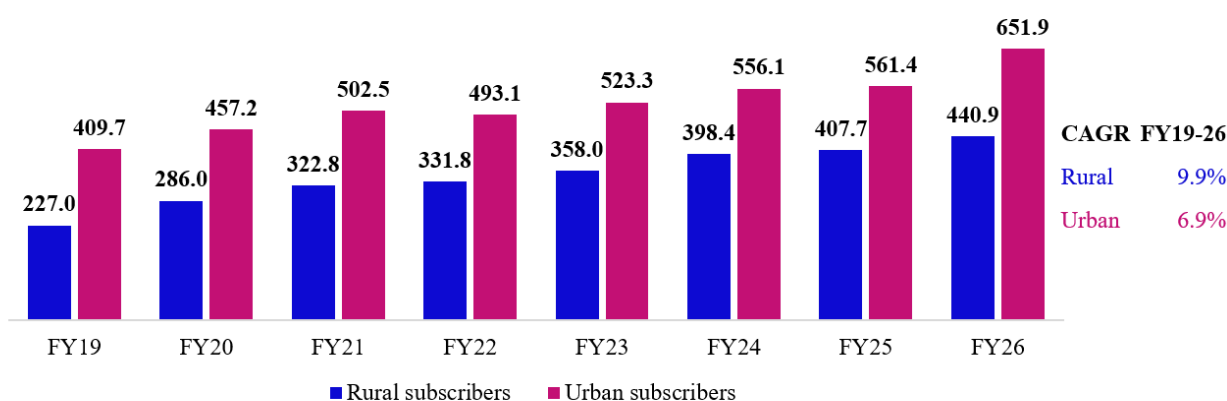
Monthly data consumption per mobile broadband subscription (GB, CY17-24)



Note: GB refers to gigabyte
Source(s): International Telecommunication Union, ILLattice analysis

Increase in Indian broadband subscribers (rural vs urban)

Indian broadband subscribers (rural vs urban) (#M, FY19-26)



Source(s): Telecom Regulatory Authority of India, ILLattice analysis

The rise in rural broadband subscribers, from ~227.0M in FY19 to ~440.9M in FY26, reflects a significant demand for connectivity in remote areas. In the last five years, rural areas had an ~9.9% growth in subscribers compared to ~6.9% in urban areas, driven by improved infrastructure and the deployment of good quality broadband cables. Expanding connectivity in rural areas remains a critical driver of economic development and the creation of new start-up ecosystems. To expand their footprint in rural regions, the expansion has been accelerated by local cable operators. These collaborations are crucial for rolling out FTTH (Fibre-to-the-home) and FWA (Fixed wireless access) technologies, ensuring broadband reaches even the remote and rural regions, contributing to the overall growth in rural broadband penetration.

Premiumisation of fixed broadband services & growth in connecting infrastructure

With the boom in IoT connections, the penetration of internet enabled electronic devices has led to a surge in the consumption of data. Nowadays, data is consumed on multiple platforms like television, laptops, desktops, mobile & other electronic items for different purposes like video streaming, online gaming, education, social media browsing & others. In addition to this, the ISPs are bundling their broadband services along with other OTT platforms attracting consumers to increase their data consumption. To cope with the growing data consumption, it is essential to develop the broadband cables infrastructure with the requisite capabilities to ensure the right bandwidth & high-speed connection.

For e.g., in networking cables, CAT5 cables can offer a maximum internet speed of upto 1 Gbps while CAT7 cables can offer a speed of upto ~10 Gbps. Therefore, in a home broadband set up a CAT5 cable will suffice, but for office and data centre networks usually CAT7 cables are preferred.

Addition of services to improve customer satisfaction

Over the years, the broadband companies have made broadband more affordable and focused on improving the overall service offerings. In the earlier years, these plans generally provided speeds of ~20–50 Mbps and were subject to Fair Usage Policies (FUP), which effectively imposed data caps despite being labelled as "unlimited", which was priced at INR ~500-700. By FY20, increased competition among key Internet Service Providers (ISPs) such as JioFiber, Airtel Xstream Fiber, BSNL, and ACT Fibernet led to a marked enhancement in service standards. Entry-level plans began offering higher speeds, often ~100 Mbps or more and unlimited data without any imposed speed limitations at the same price, reflecting a shift towards more consumer-centric offerings in a competitive market landscape. Now at the same price, in addition to the data consumption, service providers have bundled up unlimited calls, subscriptions to different OTT platforms and other platforms to increase the overall customer satisfaction.

Government initiatives to increase broadband penetration in India

- **BharatNet initiative:**
 - BharatNet, one of the largest rural telecom projects in the world, aims to provide fibre-optic cables connectivity to all Gram Panchayats in India, ensuring non-discriminatory broadband access for telecom service providers.
 - As of Dec 2025, ~0.2M gram panchayats have been connected by ~0.7M Km of fibre-optic cables, ~1.4M FTTH connections commissioned, and ~0.3M Wi-Fi hotspots installed for last-mile connectivity.
 - The amended BharatNet program targets ~47K uncovered GPs and ~0.4M villages on a demand basis, aiming to provide ~15M rural FTTH connections.
- **National Broadband Mission:**
 - The National Broadband Mission seeks to implement the goal of "Broadband for All," as outlined in the National Digital Communications Policy of 2018.
 - NBM also aims to bridge the digital divide in the country, fast track growth of digital communications infrastructure, facilitate digital empowerment & inclusion and provide affordable, universal access to broadband to all.
 - NBM aims at increasing route length of fibre-optic cables in the country to ~5M Km and connect ~70% of the telecom towers in the country with fibre.
- **National scheme for recognition of ISPs excelling in providing rural FTTH connections:**
 - DoT has launched a scheme to recognize ISPs for their exceptional efforts in expanding FTTH broadband connections in rural areas.
 - Under this scheme, DoT has decided to recognize nine ISPs, who have provided maximum number of net additions in rural FTTH connections in a year.

- This initiative reflects the government's commitment to enhancing digital access and connectivity in rural areas, ultimately driving socio-economic development and inclusive growth broadband cables across the nation.

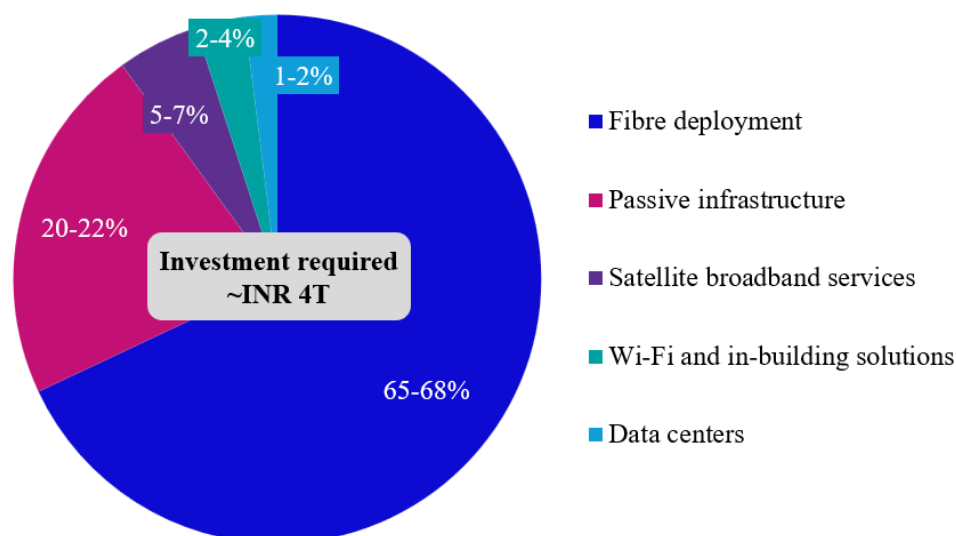
4.3.2 Impact of fixed broadband market growth on the wires & cables market growth

The growth of the fixed broadband market is poised to have a significant impact on the wires and cables market, driven by the increasing demand for internet that offers high-speed and reliable connectivity. Fixed broadband relies heavily on advanced cabling infrastructures, such as fibre-optic cables and networking cables, to provide seamless internet services to households, businesses, and public sector organisations. As the demand for data transmission continues to surge due to the proliferation of smart devices, cloud-based solutions, and digital services, the need for robust cabling infrastructure is more critical than ever.

Fibre-optic cables in particular play a pivotal role in meeting the growing data requirements of fixed broadband networks. These cables offer unparalleled speed, low latency, and enhanced reliability, making them essential for supporting activities like telecommuting, online education, and high-definition streaming. The advancement in fibre-optic technology, coupled with government initiatives to improve digital infrastructure and increase penetration in emerging markets, is creating substantial opportunities for the wires and cables market. For instance, upgrading existing networks and expanding fibre-optic connectivity in urban and rural areas will require significant investments in cabling solutions.

In India, an investment of ~INR 4T will be required by CY30 to connect ~24Cr households with high-speed broadband services. Currently, only ~4Cr households are connected to broadband, highlighting the immense growth potential in the sector. This investment will be for setting up the following:

Investment allocation of broadband services (%)



Notes: It includes both private and government investment
Sources: ILattice estimates

These numbers underscore the significant opportunities for the wires and cables market to support the country's digital transformation. The adoption of 4G and 5G technologies further amplifies this impact. Fixed-line networks serve as the backbone for delivering these services, necessitating advanced cable systems capable of supporting high-speed data transmission with minimal interruptions. The convergence of voice and data transmission via fixed networks also opens new avenues for innovation in cable technology, such as hybrid models combining fixed broadband's reliability with mobile broadband's flexibility.

Moreover, the integration of artificial intelligence (AI) into fixed broadband networks is expected to drive further demand for advanced cables. AI-powered systems optimize network management, enhance data transfer speeds, and reduce latency, requiring cables with higher capacity and reliability. These developments highlight the growing interdependence between fixed broadband advancements and the wires and cables market.

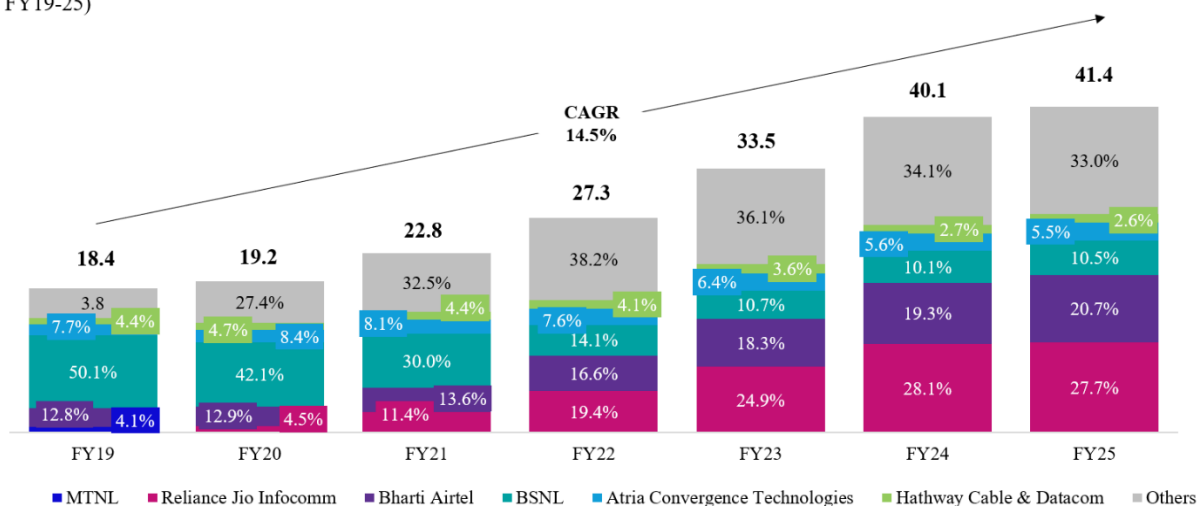
While opportunities abound, challenges such as high initial investment costs, regulatory barriers, and competition from mobile broadband services remain. However, innovation in green technology for network installations, hybrid infrastructure solutions, and enhanced fibre-optic networks can provide a competitive edge. Companies in the wires and cables market must invest in R&D to harness emerging technologies like AI, IoT, and 5G, ensuring their products align with the evolving demands of fixed broadband infrastructure. By doing so, the wires and cables market can capitalize on the growth of the fixed broadband sector, reinforcing its role as a cornerstone of modern digital connectivity.

5. Overview of fibre-optic cables market

Fibre-optic cables are advanced transmission mediums that use light to carry data at high speeds over long distances. They are composed of thin strands of glass or plastic fibres. These cables offer higher bandwidth, lower latency, and greater reliability compared to traditional copper cables. The increasing demand for fibre-optic cables can be attributed to several factors, including the growing data traffic driven by remote work, video streaming, online transactions, and the widespread adoption of digital technologies. In India, key drivers of this demand include rollout of 5G networks, the expansion of 4G infrastructure, and the GoI's BharatNet Phase-III program. Additionally, the extensive laying of fibre-optic cables along national highways and the hyperscaling of data centres further emphasize the need for high-capacity fibre-optic solutions, making fibre-optic cables critical component of the country's evolving digital landscape. The industry has gone through a difficult phase globally due to falling fibre prices. However, the price declining phase is over and the industry is poised to grow at a healthy rate in the coming years for existing and active players.

5.1 Growth of the market share of fixed broadband service providers in terms of subscribers

Market share of fixed broadband service providers in terms of subscribers
(%, FY19-25)

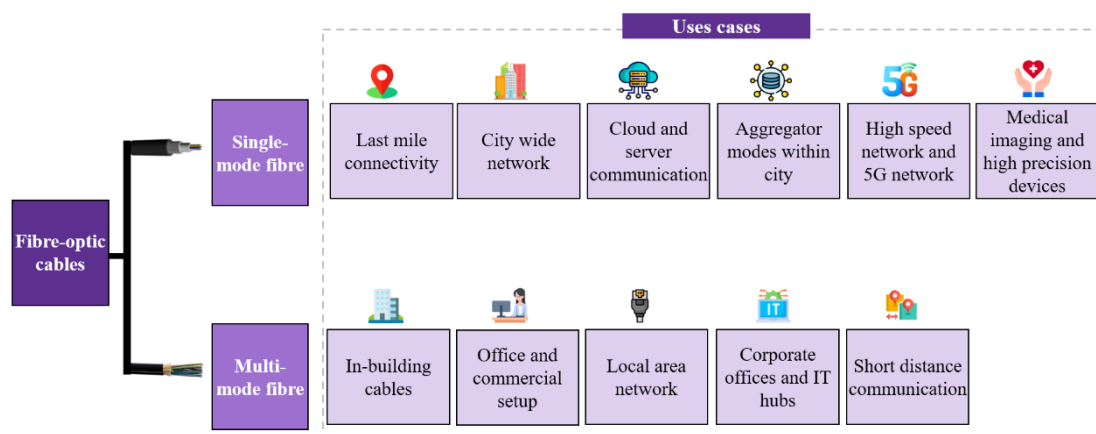


Note(s): MTNL was amongst the top 5 cable operators in FY19; It lost its market share after the popularity of Jio in FY20
Source(s): TRAI, ILattice analysis

The major players in the Indian wired broadband sector, in terms of subscribers, are Reliance Jio Infocomm, Bharti Airtel, BSNL, Atria Convergence Technologies (ACT), and Hathway Cable & Datacom.

- Over the past five years Reliance Jio has emerged as the market leader with the largest subscriber base of ~11.5M with ~27.7% market share in FY25, reflecting its rapid growth driven by competitive pricing, extensive network expansion, and innovative service offerings.
- Bharti Airtel accounts for ~20.7% of the market with ~8.6M wired broadband subscribers in FY25. This growth can be attributed to its strong brand presence, consistent service quality, and investments in fibre broadband infrastructure to enhance customer experience.
- BSNL, with its declining market share, makes up ~10.5% of the market with ~4.3M subscribers in FY25. The reduction is primarily due to increased competition, limited modernisation of its network, and challenges in retaining urban subscribers.
- Atria Convergence Technologies holds a ~5.5% share with ~2.3M subscribers in FY25, supported by its focus on high-speed internet plans and regional dominance in key metropolitan areas.
- Hathway Cable & Datacom has a market share of ~2.6%, amounting to ~1.1M subscribers in FY25, leveraging its presence in cable TV bundling and affordable broadband offerings.

5.2 Overview of fibre-optic cables market and its use cases



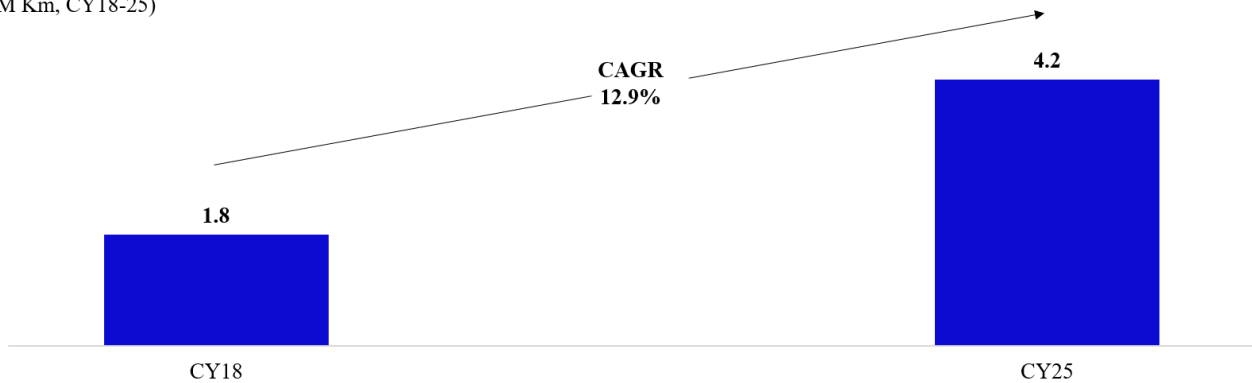
Fibre-optic cables are the backbone of modern connectivity, driving critical advancements in smart homes, smart offices, in-building communication systems, and last-mile connectivity. The Indian fibre-optic cables market is growing rapidly, with an estimated market size of ~INR 105.0B in FY26 and projected to reach ~INR 233.1B by FY31, growing at a CAGR of ~17.3%. This growth is fuelled by the increasing demand for high-speed, reliable communication infrastructure to support smart technologies and modern lifestyles. Orient Cables (India) Ltd has secured key certifications, including UL and ETL approvals, and is well-positioned to capitalise on this momentum by not only benefiting from strong industry tailwinds but also by increasing its revenue market share in the fibre-optic segment

Fibre-optic cables are pivotal for last-mile connectivity, ensuring seamless delivery of high-speed internet and data services to end-users. They support bandwidth-intensive applications like 4K streaming, IoT devices, and video conferencing with low-latency, high-capacity connections. Beyond individual applications, fibre-optic cables citywide networks, 5G infrastructure, and smart city solutions, driving digital adoption in urban and rural areas alike. This growing demand underscores the critical role of fibre-optic technology in shaping modern communication and connectivity. Fibre-optic cables are used across industries like telecommunications, IT, healthcare, defence, and broadcasting for high-speed, reliable data transfer, where they support critical applications such as internet services, medical imaging, secure communications, and content delivery.

5.3 Growth drivers of fibre-optic cables network in India

The fibre-optic cables network is experiencing significant growth, fuelled by the increasing demand for high-speed internet, the expansion of 5G networks, and the rise of data centres. In India, fibre-optic cables have become the key enabler of the digital ecosystem, with rollouts accelerated in recent years to support government initiatives like Digital India, BharatNet, and the Smart Cities Mission. The fibre-optic cables market is projected to increase at a CAGR of 17.3% from FY26-31 to reach INR 233.1B by FY31. Telecom operators are also focusing on enhancing site fiberisation and improving last-mile connectivity. India's fibre-optic cables network has expanded substantially, growing from ~1.8M Km in CY18 to ~4.2M Km in CY25, reflecting a CAGR of ~12.9%.

Fibre-optic cables network in India (M Km, CY18-25)



Source(s): Ministry of Communications, ILLattice analysis

To sustain growth, the industry will need to adopt innovative rollout strategies, involve non-telecom players such as tower companies and utilities, and explore opportunities in both domestic and international markets. India currently manufactures ~100M Fkm annually, while domestic consumption stands at ~46M Fkm per year, less than half of its manufacturing capacity. Additionally, the National Highways Authority of India has announced the development of an integrated fibre-optic cable network spanning ~10K Km across the country. This is paving the way for substantial market expansion, fuelled by:

- **5G rollout leading growth in fibre-optic cables market**

Tower fiberisation is crucial for fully realizing the benefits of 5G. While leading markets like the US and China have achieved tower penetration rates of ~80-90%, India has set an ambitious target of ~70% by FY25 as it strives to become a 5G leader.

As 5G mobile subscriptions continue to grow globally, service providers are expanding their commercial 5G networks and deploying standalone solutions. Tower fiberisation will become a key factor in delivering the optimal 5G experience. In FY25, India has achieved ~46% fiberisation. A huge amount of fibre deployment is required nationally to meet this target. Additionally, ~1.4M Fibre-To-The-Home (FTTH) connections have been commissioned across India, enhancing last-mile connectivity and supporting high-speed broadband access for residential users.

- **Public-private partnerships model**

Public-private partnerships are becoming a key solution for bridging the digital divide between urban and rural areas and driving fibre-optic network expansion. By combining the resources and expertise of both the public and private sectors, PPPs help to implement the fibre-optic projects needed to meet the rising demand for broadband internet, especially in remote regions. In rural areas, where the cost of infrastructure can be high and demand may be low, PPPs encourage private companies to invest in building fibre networks, with the government providing support.

In India, the BharatNet initiative highlights how PPPs can address this challenge. With an investment of ~INR 1,400B, BharatNet will expand fibre-optic networks to inhabited villages beyond Gram Panchayats in 16 states. A viability gap funding of ~INR 190.4B will be provided for this PPP model to ensure that fibre connectivity reaches both urban and rural areas, promoting digital inclusion and expanding fibre networks across India.

- **Fibre-optic cables are becoming the backbone of AI data centres**

AI is set to revolutionize every aspect of our lives, starting with data centres, where GPU-based AI servers are driving new standards for fibre-optic densification. To support the workloads of large language models, which are through text and voice prompts, they depend on the dense, intricate fibre-optic connections within data centres. The scale of AI-driven fibre densification in these centres is enormous.

At the same time, investments in data centres are rapidly increasing in India, as well as in the Middle East and Africa. India's data centre industry is expanding rapidly, driven by digitalisation, improved technological infrastructure, and the adoption of advanced technologies like 5G, AI, blockchain, and cloud computing. India's data centre capacity has reached ~1.7 GW in FY26 and is expected to reach ~10-12 GW by FY31.

- **Rising demand for smart cities and IoT applications**

Indian government's push for smart city development and the rapid growth of the IoT ecosystem are significantly driving the demand for fibre-optic cables. As fibre-optic cables form the backbone of smart city infrastructure, it supports critical IoT-based applications like smart utilities, transportation, surveillance, and digital services. Additionally, the expansion of IoT across sectors such as healthcare, manufacturing, and agriculture further amplifies the need for reliable communication mediums like fibre-optic cables. This growing reliance on fibre-optic networks for seamless data transfer, real-time monitoring, and remote control is fuelling the expansion of the fibre-optic cables market.

5.4 Government initiatives promoting fiberisation in India

The government has undertaken several key initiatives to drive the growth of fibre-optic cables in India, aiming to enhance broadband connectivity and support the nation's digital transformation. Programs like BharatNet, Make in India, and the National Broadband Mission are pivotal in strengthening the fibre-optic infrastructure.

These initiatives focus on extending broadband access to rural and remote areas, encouraging domestic manufacturing, and scaling fiberisation efforts nationwide. By addressing both infrastructural and manufacturing aspects, these efforts collectively contribute to the growth of the fibre-optic cables industry, fostering economic development and bridging the digital divide.

BharatNet	Make in India	National Broadband Mission 2.0
 • Aims to provide broadband connectivity to ~0.3M Gram Panchayats across India • As of May 2025, 0.7M Km of fibre-optic cables were laid, connecting ~0.2M Gram Panchayats, and ~0.2M Gram Panchayats are service ready on fibre-optic cable • Phase 3 plans to extend broadband to 15M rural households with ~INR 1.4T in capital expenditure	 • Encourages domestic manufacturing of fibre-optic cables and components • Provides government support and incentives for establishing fibre-optic cables manufacturing facilities in India • By aligning with the vision of an Atmanirbhar Bharat, it creates opportunities for job creation and innovation within the fibre-optic cables industry	 • NBM 2.0 will facilitate universal and equitable access to broadband services across the country, especially in rural and remote areas • NBM 1.0 saw 4.2M RKm of optical fiber cable (OFC) laid by FY25 • Under the mission tower installations reached 0.8M by FY25

5.5 Starlink's satellite internet in India

With the Indian government actively progressing towards the administrative allocation of satellite spectrum and global players like Starlink and Amazon showing strong interest, India stands at the cusp of a new phase in digital connectivity. Satellite internet, particularly via low earth orbit (LEO) constellations, has the potential to address last-mile connectivity gaps. However, its widespread commercial adoption remains fraught with cost and technical constraints—especially in a price-sensitive market like India.

Current landscape and developments

- **Satellite licensing advances:** The DoT has already granted satellite communication licenses to Jio Satellite Communications Ltd (a JV with Luxembourg-based SES) and OneWeb India Communications (backed by Bharti Airtel and Eutelsat Group). These companies are preparing to roll out satellite broadband services for enterprise and rural use-cases.
- **Starlink's regulatory progress:** The company has secured the GMPCS licence to offer satellite communication services to retail consumers, along with a VSAT licence and approvals for in-flight and maritime connectivity. In addition to Starlink, licences have been granted to Bharti-backed OneWeb and Jio Satellite Communications

to provide satellite services in India. While spectrum has been allocated for security compliance demonstrations, none has received final security clearance yet.

- Pending applications: Amazon's Project Kuiper and Starlink had applied earlier for approvals, with regulatory scrutiny focused on security, data localisation, and coverage plans near sensitive border regions.
- Spectrum allocation modality: The TRAI is working to finalize the pricing framework for administratively allocated satellite spectrum. While companies like Starlink and Amazon support this model, traditional telecom operators such as Jio and Airtel continue to advocate for auction-based allocation, citing fairness and regulatory parity.
- New partnerships with Jio and Airtel: In March 2025, Bharti Airtel and Reliance Jio announced separate agreements with SpaceX to introduce Starlink's satellite internet services in India. These collaborations aim to leverage the extensive infrastructure and customer bases of the Indian telecom giants to facilitate Starlink's entry into the Indian market.
 - Bharti Airtel: Airtel's partnership with Starlink focuses on enhancing connectivity in underserved and remote regions. The agreement includes provisions for selling Starlink equipment through Airtel's retail outlets, offering Starlink services to Airtel's business customers, and establishing customer service mechanisms for installation and activation.
 - Reliance Jio: Jio's collaboration with Starlink aims to distribute Starlink devices through Jio's retail outlets, leveraging Jio's existing infrastructure to enhance satellite coverage. This partnership is expected to provide high-speed internet access to millions in remote areas, contingent on Starlink receiving government approval to operate in the country.

Satellite connectivity for inclusive growth

- Last-Mile Digital Inclusion: Starlink can plug connectivity gaps in remote villages, mountains, deserts, and border zones where fibre deployment is infeasible.
- Disaster-Resilient Communication: Satellite networks are critical for emergency services, especially in the aftermath of natural calamities where terrestrial infrastructure fails.
- Support to Public Schemes: Initiatives like BharatNet could be supplemented by satellite backhaul to speed up rural internet rollout.

Challenges in the Indian market

- Affordability challenges in India:
 - Starlink's monthly residential plans start at ~US\$ 120 with additional hardware costs of ~US\$ 349
 - In comparison, Indian FTTH plans from Jio and Airtel start as low as ~INR 399/month (US\$ 4.7) with free installation and bundled OTT services
 - Even in Africa, where Starlink has offered plans at US\$10/month for 50GB, it's still significantly more expensive than Indian broadband alternatives
- Traction beyond premium segments:
 - Starlink's global ARPU is ~US\$ 100, while Indian telcos operate on mobile ARPUs ~US\$ 3 and fixed broadband ARPUs ~US\$ 7
 - Such disparity makes it difficult for satellite services to gain traction beyond premium or enterprise segments
- Network capacity and frequency reuse limitations:
 - Terrestrial networks in India have over ~29 million base stations and ~800,000 towers; In contrast, Starlink currently operates just ~7,000 satellites worldwide and has plans to expand that number to ~40,000
 - Satellite networks lack the dense frequency reuse and scalability advantages of terrestrial infrastructure, which affects bandwidth, speed, and concurrent user capacity
- Technical challenges with satellite architectures

While LEO (Low Earth Orbit) and MEO (Medium Earth Orbit) configurations (used by Starlink and OneWeb) reduce latency and improve speed compared to geostationary orbit (GSO) satellites, several inherent constraints remain:

 - Beam steering is necessary due to the movement of non-GSO satellites. This is difficult to implement on mobile devices and adds to hardware complexity

- GSO satellites, placed at ~36,000 km, suffer from high latency (~240ms round trip), signal degradation, and limited frequency reuse due to broader coverage areas
- High-frequency bands (e.g., Ku and Ka) offer better bandwidth but are prone to atmospheric losses, especially during heavy rain—common in many Indian regions
- Telco dependence for direct-to-device integration
 - Starlink’s “Direct to Cell” solution—designed to allow standard LTE handsets to connect to satellites—requires partnerships with telecom operators to access spectrum
 - Starlink has formed such alliances with T-Mobile (USA), Rogers (Canada), and KDDI (Japan), but it will require similar cooperation in India, adding regulatory and commercial complexity

Starlink's satellite broadband success will depend on overcoming affordability barriers, regulatory compliance, and a shift in its pricing strategy to align with India’s economic realities.

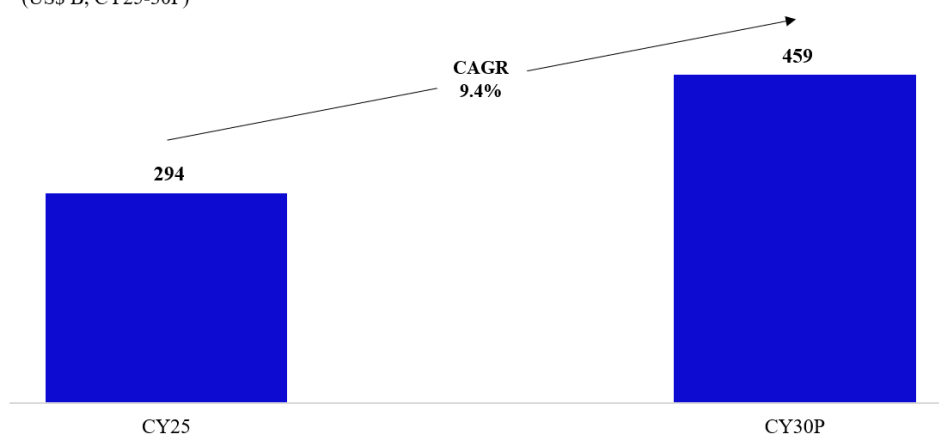
6. Data centre market – Global & Indian

6.1 Global data centre market was valued at ~US\$ 294B in CY25 and is expected reach ~US\$ 459B by CY30, growing at a CAGR of ~9.4%

Data centre is a critical facility that provides access to applications and data through a complex network, computing, and storage infrastructure. It plays a vital role in processing, storing, and disseminating large volumes of data essential for business operations, driving innovation, enhancing efficiency, and enabling data-driven decision-making across industries, serving a critical function in the digital economy. As data centres expand, the demand for enabling components, particularly networking cables, will grow, forming the backbone of seamless connectivity and efficient data transmission.

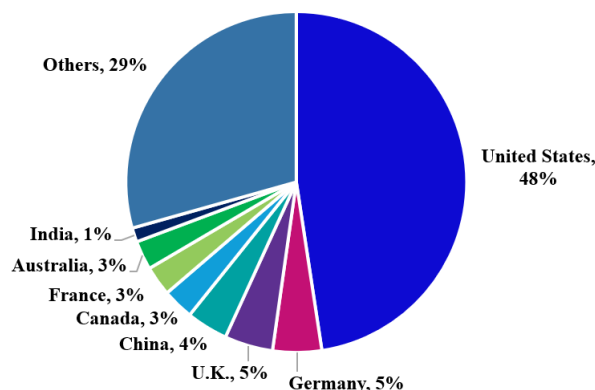
Global data centre market was valued at ~US\$ 294B in CY25 and is expected to reach ~US\$ 459B by CY30, growing steadily at a CAGR of ~9.4%. This growth is driven by rising digitalisation, increased cloud adoption as businesses relies more on data, advancements in AI, particularly generative AI, advanced cloud computing in business operations, and government policies, including tax incentives and power subsidies that encourage investments.

Global data centre market size
(US\$ B, CY25-30P)



As of CY24, there are ~11,400 data centres worldwide. The United States leads with ~5,426 (~48%) data centres, followed by Germany with ~529 (~5%), the U.K. with ~523 (~5%), China with ~449 (~4%), Canada with ~337 (~3%), France with ~322 (~3%), Australia with ~314 (~3%), and India with ~153 (~1%) data centres.

Global data centre count by countries
(Percentage, CY24)



Source(s): ILLattice analysis

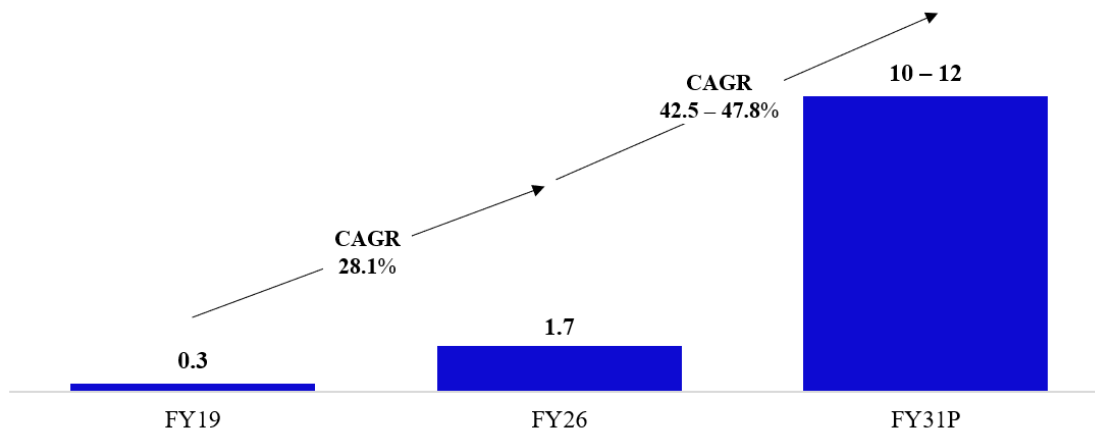
6.2 Indian data centre power capacity stood at ~0.3GW in FY19 and reached ~1.7GW in FY26, reflecting a CAGR between ~28.1% for the period

India's emphasis on data localisation and digitalisation is fuelling rapid growth in its data centre industry. The Digital Personal Data Protection Act (DPDP), 2023, encourages data localisation to enhance national security, with sector-specific requirements mandating the storage of data within the country. This regulatory framework has created a favourable environment for increased investment in the country's data centre infrastructure. Coupled with initiatives like Digital India, JAM (Jan Dhan, Aadhaar, and Mobile) trinity, are strengthening the digital ecosystem and accelerating data proliferation, with the digital economy projected to contribute ~20% to GDP by FY26. These factors are set to propel the India data centres. This expansion will also benefit the specialized segment of broadband cables, particularly networking cables such as CAT5, CAT6, CAT6A, etc.



India is the second fastest-growing data centre market in the Asia Pacific region and ranks 14th globally with ~153 operational data centres. The Indian data centre market is rapidly growing due to advancements in AI and IoT, increased cloud computing adoption, digitalisation, internet penetration, data localisation mandates, and supportive government initiatives like Data Centre Policy 2020.

Indian data centre market by power capacity (GW, FY19-31P)

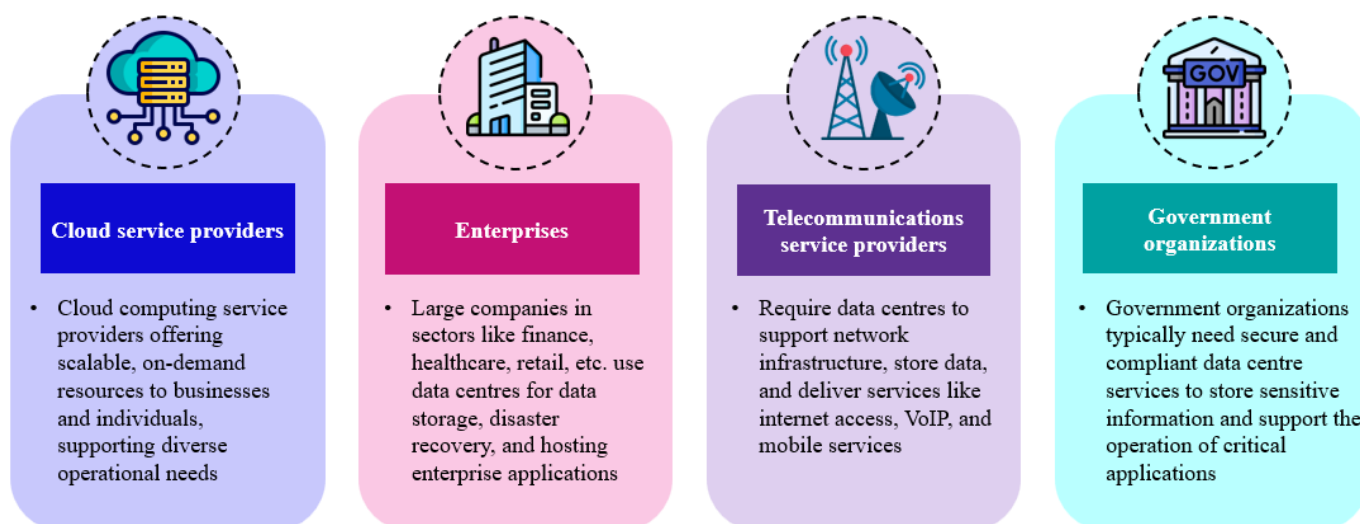


Source(s): ILLattice analysis

In terms of power capacity, Indian data centre power capacity stood at ~0.3GW in FY19 and reached ~1.7GW in FY26, reflecting a CAGR between ~28.1% for the period. This power capacity is expected to reach ~10-12GW in FY31, expanding at a robust CAGR of ~42.5 to ~47.8% over FY26-31. This growth is driven by rising demand for data centres, tech advancements, digital infrastructure, smart devices, and 5G, increasing the need for data and storage capacities. Wires and cables are critical components of data centres, enabling seamless connectivity, power transmission, and efficient data flow. The data centre wires and cables market accounts for ~4% of the overall data centre market.

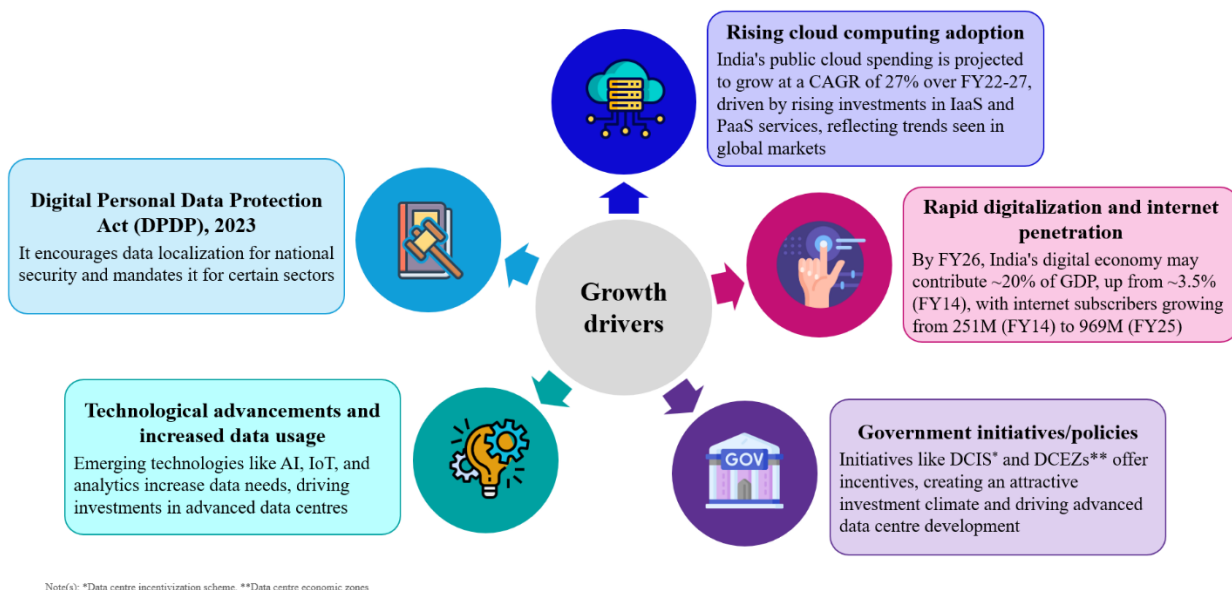
6.3 Key end users of data centres

Key data centre users include cloud providers, large enterprises across sectors like finance, healthcare, retail, etc. for storage, disaster recovery, and application hosting, telecom companies, and government organizations needing secure storage



6.4 Growth drivers for the Indian data centre market

The Indian data centre market is witnessing substantial growth, fuelled by rising demand for cloud computing services, rapid digitalization, and internet penetration, government initiatives/policies such as the Data Centre Incentive Scheme (DCIS), technological advancements in AI and IoT which drives the data and connectivity need, and the Digital Personal Data Protection Act (DPDP), 2023.



Government initiatives/policies:

- **Draft data centre policy 2020:** It seeks to enhance ease of doing business, attract investments, and accelerate growth by promoting competitiveness, ensuring secure operations, supporting indigenous manufacturing, improving infrastructure, and building sector capacity through incentives and skill development. Under this policy various initiatives were taken, such as:
 - **Data Centre Economic Zones (DCEZ):** Establishment of at least four Data Centre Economic Zones (DCEZ) under a Central Sector Scheme aiming to foster a robust ecosystem comprising hyperscale data centres, cloud service providers, IT companies, R&D units, and allied industries
 - **Essential Services Maintenance Act, 1968 (ESMA):** Classifying data centres as an essential service under ESMA ensures uninterrupted operations, enabling continuous service delivery and maintaining daily activities, even during emergencies, calamities, or crises
 - **Data Centre Incentivization Scheme (DCIS):** It will offer fiscal and non-fiscal incentives to promote the development of data centre parks and data centres. It will support the use of domestic IT hardware, including servers and network devices, and non-IT equipment like cooling systems

The Indian government may revise the Data Centre Policy 2020 to align with the industry's evolving needs and expectations. This revision could involve granting infrastructure status to data centres and providing additional incentives to companies establishing advanced data centres utilizing artificial intelligence (AI) and machine learning (ML).

6.5 Different components of data centres

Data centres rely on three core components: computing resources, network infrastructure, and storage infrastructure. These work together to manage, process, and store data efficiently, helping businesses to scale, improve performance, and enhance security.

- **Computing resources:** Features servers with varying capabilities, supporting physical, virtualized, containerized, or edge computing setups for processing and memory
- **Network infrastructure:** Includes switches, routers, firewalls, cables, etc. to connect components and users
- **Storage infrastructure:** Utilizes HDDs, SSDs, and tape storage for secure data retention and management

The network infrastructure can be divided into active and passive components.

- **Active components:** It includes devices such as switches, routers, firewalls, gateways, etc. that handle, boost, and process network signals
- **Passive components:** Components such as cables, connectors, patch panels, wall plates, and sockets serve as the pathway for network signals. These components are critical for networking and communication within data centres. They establish redundant connections between systems and the internet, ensuring seamless operation

6.6 Impact of data centre growth on the wire & cables market

The expanding data centre market will drive the demand for wire and cable solutions as organizations aim to improve efficiency and cut operational costs. This trend is expected to fuel significant growth in the data centre wire and cable market. The networking system is a critical component in the data centre, which ensures fast and reliable data transmission. As data centres continue to grow, the demand for advanced networking solutions will rise.

- **Growth in requirement of networking equipment:** Networking equipment currently constitutes ~5% of total data centre costs and will experience proportional growth driven by the increasing scale and complexity of data centres. With the Indian data centre market expected to grow at a CAGR of ~42%+ and the global market at ~9% over the next five years, the demand for advanced networking equipment, including cables, connectors, cable management systems, etc. is set to surge. This growth in the data centre market reflects the need for robust, scalable, and efficient networking solutions to support expanding data volumes
- **Rising power capacity of data centres:** The increasing power capacity of data centres highlights the growing demand for efficient infrastructure, particularly in cabling solutions. As data centres expand, the focus on energy-efficient technologies becomes essential. Fibre-optic cables, with their ability to transmit data over long distances using less power compared to traditional copper cables, offer a significant advantage. This shift towards advanced cabling solutions is critical to supporting the future growth of data centres while addressing the challenges of rising energy consumption and costs
- **Need for advanced networking cabling solutions:** The rapid expansion of data centres will drive the need for high-performance networking cables like fibre-optic and advanced twisted pair cables to meet growing high-speed demands. Traditional cabling methods will struggle to keep pace with the future demands of cloud computing, big data analytics, AI, and ML, which will lead to the accelerated adoption of advanced cabling solutions capable of managing larger data volumes at higher speeds. Additionally, as businesses increasingly migrate to the cloud, data centres require faster, more reliable, and scalable infrastructure, fuelling the demand for cables that ensure efficient data handling over both short and long distances
- **Growth in requirement of ancillary products:** The expansion of data centres will drive demand not only for advanced networking cables but also for a wide range of ancillary products such as keystone jacks, patch cords, power strips, etc. These ancillary solutions play a crucial role in optimizing network performance and organizing cabling systems. Patch cords, for instance, facilitate connections between devices and the network infrastructure, while keystone jacks enable effective connectivity within structured cabling systems. As the data centre industry grows, these supporting products are essential for maintaining infrastructure efficiency and scalability

7. E-beam market

Electron Beam (E-beam) technology uses accelerated high-energy electrons to enhance material properties like durability and resistance. E-beam cross-linking improves mechanical, thermal, and chemical resistance in cables, enabling higher current capacity, reduced thickness, and extended lifespan. This technology also enhances safety by preventing fires from overloads or short circuits.

E-beam cables are utilized across various industries. In the solar and wind industry, they withstand temperature extremes, UV radiation, and chemical degradation. In railways, automobiles, and the aviation industry, they ensure reliable communication despite vibration and stress. Marine environments benefit from their water resistance properties, while in defence and nuclear plants, they support precise energy transmission and simulate high-radiation conditions for testing.

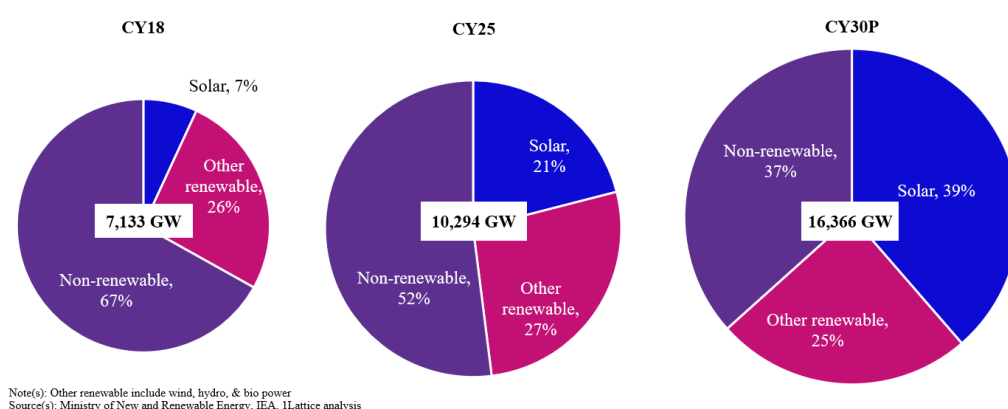
Industry	Application
Solar & wind	• E-beam crosslinked cables resist temperature extremes, UV radiation, and chemical degradation, ensuring durability and reliability in outdoor conditions
Railways, automobiles & aviation	• Ensures reliable communication and data transmission while withstanding vibration, stress, and temperature changes
Ship & submarine	• E-beam cables are highly durable and water-resistant, capable of withstanding the harsh marine environment
Defence	• Ensures precise, reliable energy transmission for E-beam welding in sophisticated defense systems under extreme conditions
Nuclear plants	• Simulates high-radiation environments, enabling accelerated material testing for durability and performance in nuclear plants

7.1 Overview of green energy trends

Climate change, driven by human activities since the 1800s, intensifies extreme weather events like droughts, floods, rising sea levels, and biodiversity loss, primarily due to greenhouse gas emissions from burning fossil fuels. The UNFCCC (1992) and the Paris Agreement set global climate targets, urging nations to limit warming and emissions. India, aligning with these goals, requires ~US\$ 170B annually by CY30 to advance sustainability through renewable energy, energy efficiency, and policy reforms.

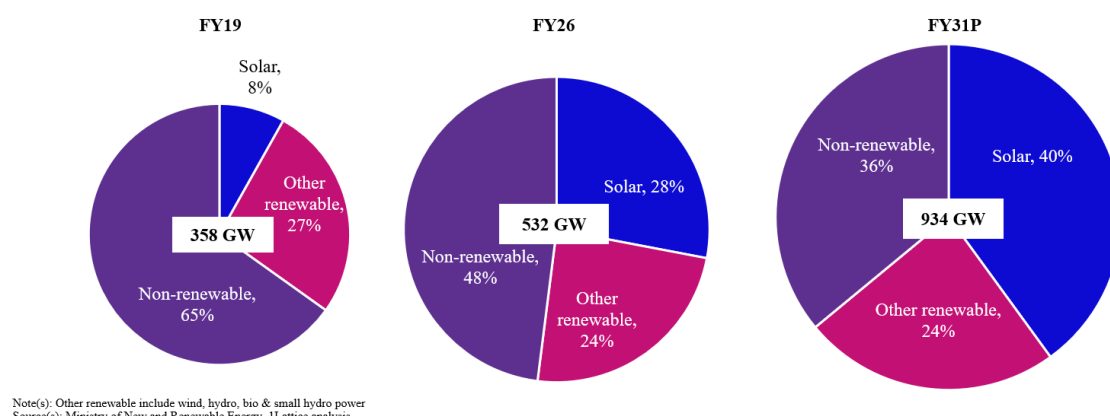
Globally, renewable energy is experiencing robust growth, with a notable surge in solar energy adoption. Solar energy's share in overall power generation capacity has grown from ~7% (~492 GW) in CY18 to ~21% (~2,160 GW) in CY25 at a CAGR of 23.54% between CY18-25, and further to ~39% (~6,331 GW) by CY30 at a CAGR of 23.99% between CY25-30. The share of renewable energy (solar + other renewable energy) in total power generation capacity has increased from ~33% (~2,361 GW) in CY18 to ~48% (~4,925 GW) in CY25. It is projected to reach ~63% (~10,374 GW) by CY30, reflecting a global transition toward sustainable energy sources and reduced reliance on non-renewable energy.

Share of renewable & non-renewable sources installed capacity globally
(%, CY18-30P)



India is witnessing a transformative shift in its energy mix, driven by solar energy and other renewable sources. Solar energy leads this growth, with its share in overall power generation capacity increasing from ~8% (~29 GW) in FY19 to ~28% (~150 GW) in FY26 at a CAGR of 26.0% between FY19-26, and further to ~40% (~408 GW) by FY31 at a CAGR of 22.0% between FY26-31. The share of renewable energy (solar + other renewable energy) in total power generation capacity increased from ~35% (~125 GW) in FY19 to ~52% (~275 GW) in FY26 and is projected to reach ~64% (~626 GW) by FY31, reflecting India's commitment to expanding renewable energy infrastructure and achieving a more sustainable and balanced energy mix.

Share of renewable & non-renewable sources installed capacity in India
(%, FY19-31P)



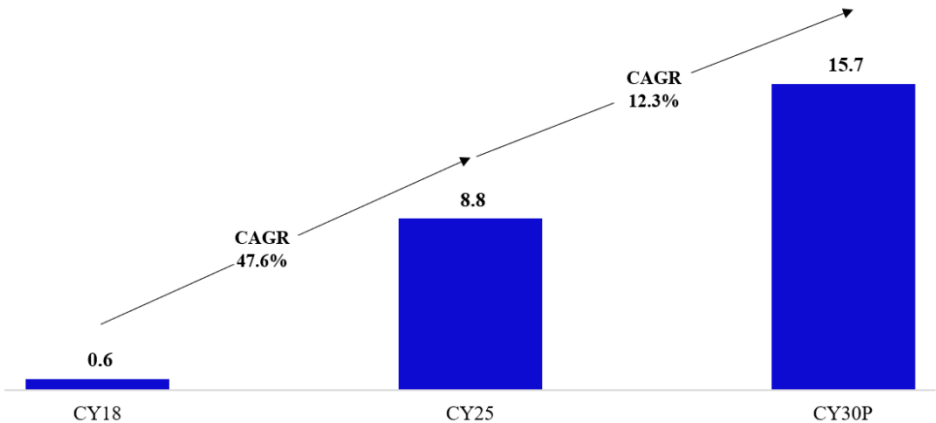
India's green energy sector is rapidly growing, with renewable energy capacity reaching ~52% (~275 GW) of total energy generation capacity in FY26, making it the fourth largest globally. By CY30, India targets ~500 GW of renewable energy, with solar and wind contributing over ~80%. Government initiatives like the Solar Park Scheme and rising EV adoption are driving the shift to sustainable energy, supported by increasing private sector participation.

India's growing solar energy capacity has amplified the demand for robust and efficient wiring solutions critical for energy transmission and system reliability. These wiring requirements are fulfilled through traditional non-E-beam and advanced E-beam technologies. While non-E-beam wires continue to serve conventional needs, E-beam wires are gaining prominence due to their superior durability, thermal resistance, and ability to withstand harsh environmental conditions—making them ideal for large-scale solar installations.

7.2 Global solar E-beam market is ~US\$ 8.8B in CY25 and expected to grow at ~12.3% over CY25-30

The rising demand for electron beam (e-beam) processing in the wires and cables industry is driven by its advantages over traditional curing methods. Companies are adopting e-beam technology for faster curing, reduced energy use, and improved cable durability. E-beam processing enhances resistance to heat, moisture, and chemicals, making it a cost-effective and reliable solution for solar industries.

Global solar E-beam market size
(US\$ B, CY18-30P)



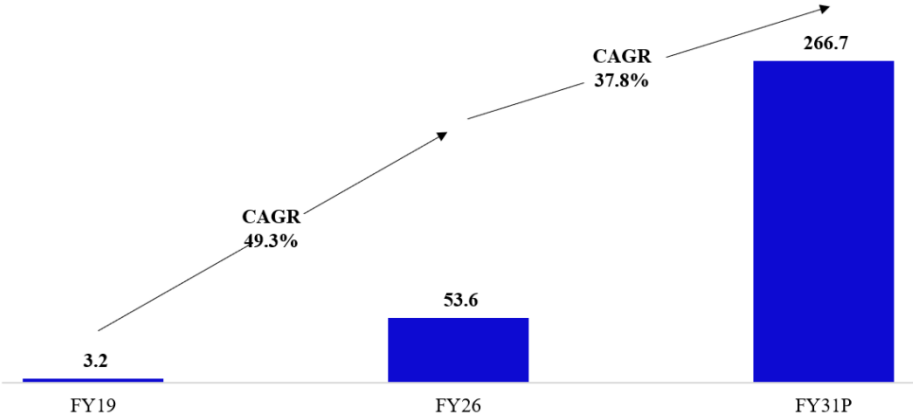
Source(s): I Lattice analysis

Between CY18 and CY25, the global solar E-beam market experienced substantial growth, with its market size increasing from ~US\$ 0.6B in CY18 to ~US\$ 8.8B in CY25, reflecting a robust CAGR of ~47.6%. This growth was driven by rising demand for clean energy and advancements in e-beam technology. The market is projected to expand further, reaching ~US\$ 15.7B by CY30, achieving an average CAGR of ~12.3% between CY25 and CY30.

7.3 Indian solar E-beam market size is expected to reach INR 266.7B in FY31 and is expected to grow at 37.8% over FY26-31

The Indian solar e-beam market size reached ~INR 53.6B by FY26 from ~INR 3.2B in FY19 with a CAGR of ~49.3%, driven by increasing demand across the renewable energy and infrastructure sectors. Growth factors include extensive solar infrastructure development, government support for green energy, and the need for reliable, long-lasting cables in large-scale solar projects. Solar e-beam technology is favoured for its ability to enhance cable durability, resistance to environmental stress, and operational efficiency, which is essential for high-performance renewable energy installations

Indian solar E-beam market size
(INR B, FY19-31P)

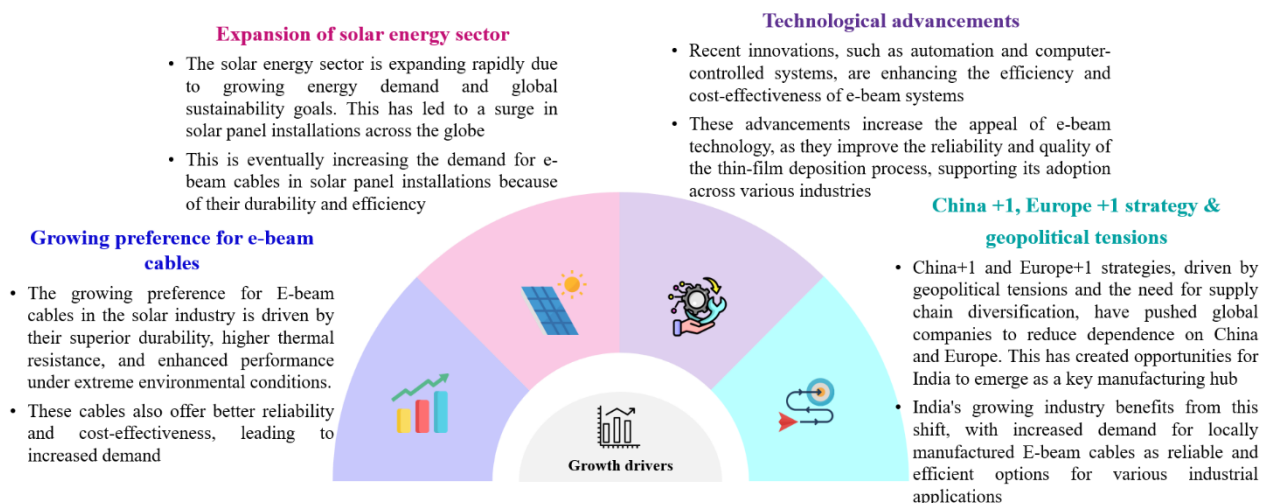


Source(s): I Lattice analysis

The market is projected to grow to ~INR 266.7B by FY31, growing at a CAGR of ~37.8% from FY26-31. This expansion is driven by ongoing investments in renewable energy integration, advancements in solar technology, and the push for sustainable infrastructure.

7.4 Key factors driving market growth

The key factors impacting the growth of the e-beam market include rising demand for high-performance electronic devices, which is driving global adoption of e-beam technology. On the other hand, continued advancements in e-beam technology and expansion of solar energy sector present significant growth opportunities for the e-beam technology



8. Tethered drone market

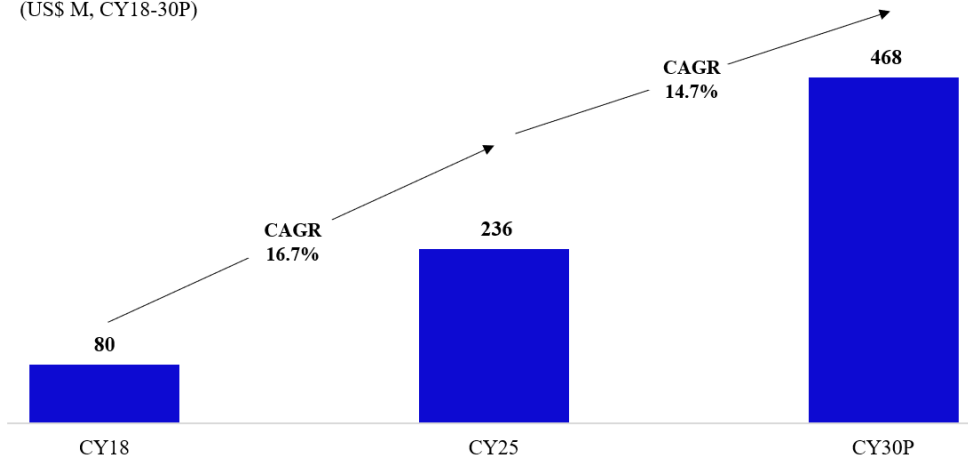
8.1 Global tethered drone market was valued at ~US\$ 236M in CY25 and is expected to reach ~US\$ 468M by CY30 reflecting a ~14.7% CAGR over CY25-30

Tethered drone is a type of unmanned aerial vehicle (UAV) connected to a ground station by a cable. It includes a base station for power, a tether cable, and the drone itself, which operates while attached to the tether cable. Unlike traditional drones with limited battery life, tethered drones draw power from ground stations which allows them to perform longer operations, making tethered drones ideal for scenarios requiring persistent aerial presence without frequent landings for recharging



The global tethered drone market was valued at ~US\$ 80M in CY18 and reached ~US\$ 236M in CY25, reflecting a CAGR of ~16.7%. It is expected to reach ~US\$ 468M by CY30, growing at a CAGR of ~14.7% during CY25-30. This growth is fuelled by increasing applications across industries such as defence, law enforcement, and telecommunications. Additionally, technological advancements like lightweight cables are among the key drivers supporting this upward trajectory.

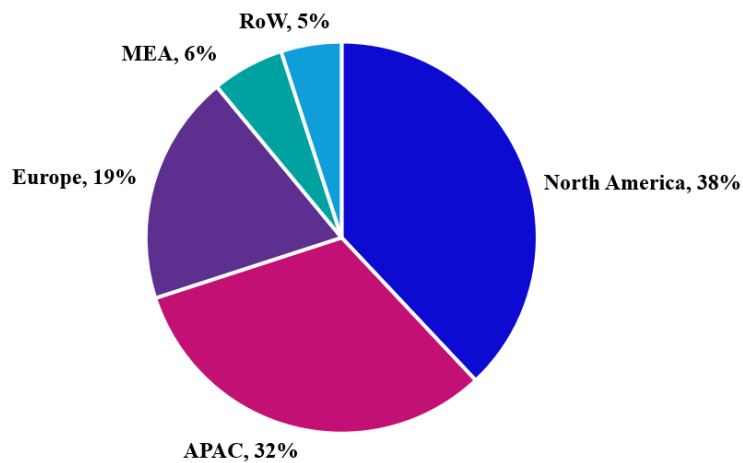
Global tethered drone market size
(US\$ M, CY18-30P)



Source(s): ILattice analysis

In CY25, North America leads the global tethered drone market, ~38% of the total market, followed by Asia-Pacific (APAC) at ~32%. Europe and the Middle East and Africa (MEA) markets held ~19% and ~6% share, respectively, while the rest of the world (RoW) contributed ~5% to the overall global market.

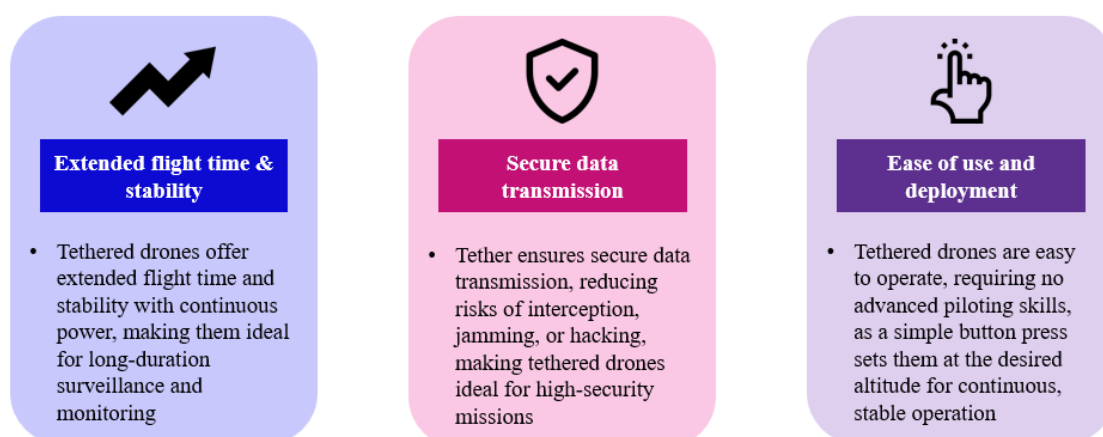
Global tethered drone market by geography
(%, CY25)



Source(s): ILattice analysis

8.1.8 Advantages of tethered drones over traditional drones

Tethered drones offer numerous advantages over traditional drones, making them a reliable and efficient solution for various applications. With extended flight time, continuous power, and enhanced stability, they are ideal for prolonged surveillance. Their secure data transmission minimizes risks like hacking, while their user-friendly design ensures easy operation with minimal training and simple controls.



Tether cables play a crucial role in ensuring the seamless operation of tethered drones by providing a stable connection for power and communication, enabling extended flight durations and reliable data transmission. They are designed to be lightweight, ensuring the drone can support them effectively, particularly when extended over long distances. These cables are built to endure challenging environments while maintaining functionality.

Key components of tether cable

- Outer jacket:** Made from lightweight synthetic materials, this layer provides durability, resists moisture absorption and withstands harsh weather conditions
- Inner jacket:** A weatherproof layer that protects the internal components from environmental damage
- Power conducting wires:** Typically composed of copper, these wires transmit power from the ground station to the drone
- Data & broadband cables:** Tethered drone cables typically contain one or multiple optical fibres to enable secure data transfer and communication

8.1.1 Key growth drivers

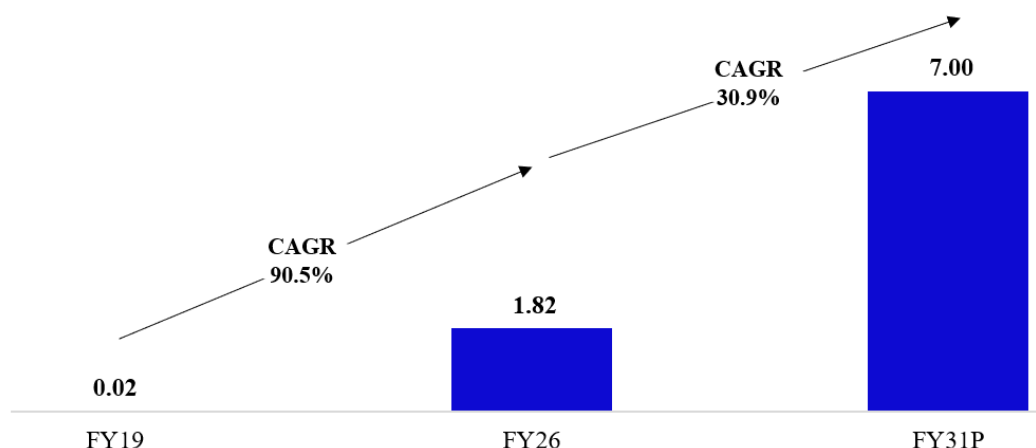
The global tethered drone market growth is driven by its expanding applications across various industries. Defence and law enforcement utilize tethered drones for continuous aerial surveillance, while telecom leverages them to enhance connectivity, supported by advancements in lightweight cables enabling extended operations.

Growth drivers		
	Demand persistent aerial surveillance	Defense and law enforcement increasingly use tethered drones for continuous aerial surveillance, overcoming battery limitations
	Application in telecommunications	Tethered drones aid in radio planning, line-of-sight testing for optimal antenna placement, and enhancing connectivity in remote areas
	Technological advancements	Advancements in electrical and cable components will make it possible for lightweight cables to support longer operational distances

8.2 Indian tethered drone market was valued at ~INR 1.82B in FY26 and is expected to reach ~INR 7.00B by FY31 with a ~30.9% CAGR

The Indian tethered drone market was valued at ~INR 1.82B in FY26 and is expected to reach ~INR 7.00B by FY31, growing at a ~30.9% CAGR. This growth is driven by the increasing demand for continuous aerial surveillance across sectors like defence and security, along with government initiatives promoting drone technology development.

Indian tethered drone market size (INR B, FY19-31P)



Source(s): I Lattice analysis

8.3 India is positioning itself to become a global drone hub

The Indian government has intensified efforts to establish a sustainable drone manufacturing ecosystem, positioning the country as a global hub for drone technology. Favourable policies and financial incentives, such as the Production-Linked Incentive (PLI) scheme launched in 2021 with an outlay of ~INR 120Cr, have played a pivotal role. ~INR 35Cr was disbursed to beneficiaries in FY25, boosting domestic manufacturing of drones and their components. Additionally, the Directorate General of Foreign Trade (DGFT) has liberalized export policies for drones and unmanned aerial vehicles (UAVs), aligning with India's Foreign Trade Policy 2023. This policy promotes high-tech exports, including drones, enhancing India's presence in global markets.

The tethered drones are increasingly being used for aerial surveillance, firefighting, defence, agriculture, traffic control and monitoring in a variety of setting including border control, critical infrastructure protection and public safety, underscoring their transformative potential. Favourable government initiatives, coupled with robust indigenous demand creation, are expected to catalyse India's emergence as a global leader in drone technology and applications.

8.4 Players in tethered drone

Globally, companies like Elistair and Hoverfly Technologies are specialized in tethered drones, catering primarily to industries such as defence, security, and public safety. Their products are often utilized for continuous surveillance, border monitoring, event security, and emergency response. Similar applications are emerging in the Indian market, particularly in defence. As the Indian government and private players increasingly adopt drones for strategic and operational purposes, the demand for tethered drones is expected to grow.

Key notable players in the Indian tethered drone industry include NewSpace Research and Technologies, Adani Defence and Aerospace, ideaForge, Asteria Aerospace, etc. NewSpace Research and Technologies has secured an order from the Indian Army to support high-altitude surveillance. Similarly, Adani Defence and Aerospace and Bharat Electronics Limited are developing tethered drone solutions.

9. Overview of ancillary products in the wires and cables industry

In the wires and cables industry, ancillary products are essential for maintaining optimal cable performance, functionality, and durability across various applications. By addressing critical connectivity, safety, and operational needs, these products expand the utility of core cables offerings, creating value-added solutions for customers.

Some of the major ancillary products in the wires and cables industry are:

- **Keystone jacks:** Keystone jacks enable secure modular connectivity in networking cables and telecommunication networks
- **Patch cords:** Patch cords ensure seamless data transmission between devices and network outlets
- **Solar junction boxes:** Solar junction boxes are integral to solar panel systems, ensuring efficient and safe power transfer
- **Power strips:** Power strips enhance versatility in power distribution, and accessories like cable ties and conduits improve cable management and durability

These ancillary products not only support diverse sectors such as telecommunications, renewable energy, and consumer electronics but also drive market growth by broadening application possibilities and improving system efficiency.

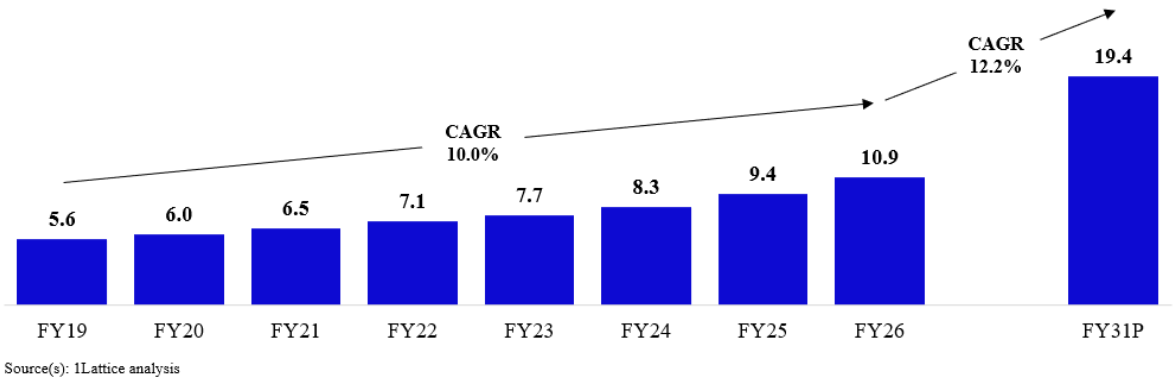
9.1 Overview of keystone jacks market in India

Keystone jacks are modular connectors used to terminate and connect Ethernet cables, phone lines, or other types of cabling in networking and telecommunications setups. They are called "keystone" because of their distinctive shape, which fits into standard wall plates, patch panels, or surface-mount boxes, allowing for easy installation and customisation. Their modular design and compatibility with keystone-compatible devices make them a versatile solution for various network configurations. These jacks are engineered to exceed high electrical performance standards, ensuring reliable, high-speed data transmission. Orient Cables (India) Ltd started manufacturing Keystone Jacks in CY24 and is one of the early movers of keystone jacks in the organised manufacturing segment, alongside players like Polycab, Havells, and Finolex. This gives Orient an early mover advantage in the Indian market



Keystone jacks are designed for use with LAN/Ethernet cables and play a key role in structured cabling systems. They come in two main types: punch-down, which require a tool to terminate cables, and tool-less, which use a built-in mechanism to secure wires.

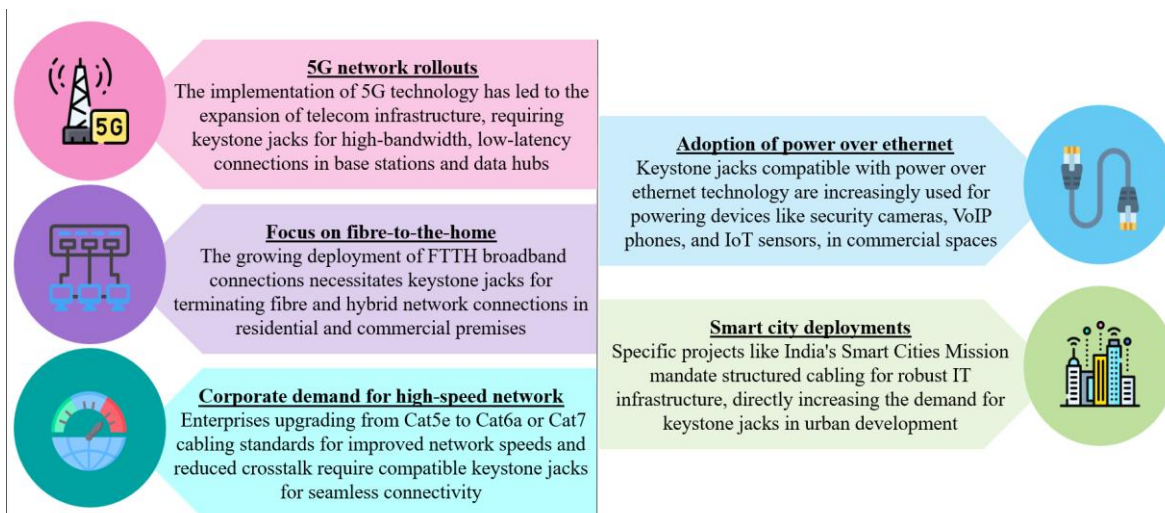
Keystone jacks market in India
(INR B, FY19-31P)



The market for keystone jacks in India has been growing at a CAGR of ~10.0%, increasing from ~INR 5.6B in FY19 to ~INR 10.9B by FY26. It is projected to expand at a CAGR of ~12.2%, reaching ~INR 19.4B by FY31.

9.1.1 Keystone jacks: key growth drivers and trends

The rollout of 5G and FTTH broadband is driving demand for keystone jacks to support high-speed, low-latency connections in telecom, residential, and commercial networks. Increased adoption of power over ethernet (PoE) technology for devices like security cameras and IoT sensors, along with enterprises upgrading to advanced cabling standards (Cat6a and above), are further boosting demand. Additionally, initiatives like India’s Smart Cities Mission are fuelling the need for structured cabling, enhancing the market for keystone jacks in urban infrastructure.



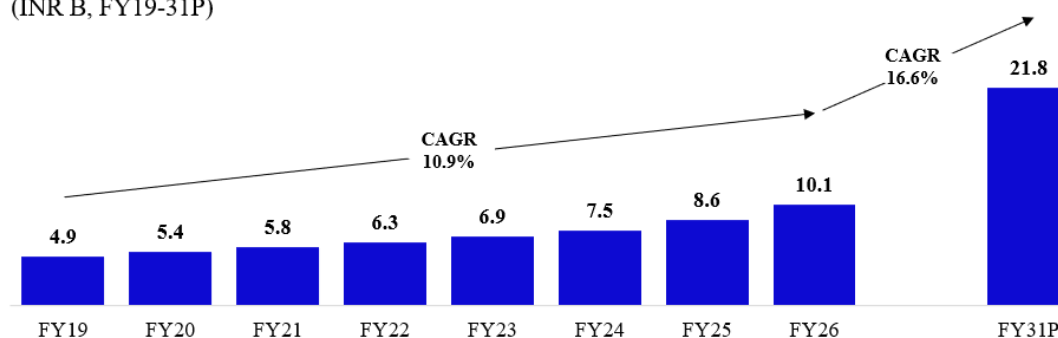
9.2 Overview of patch cords market in India

Patch cords are short cables used to connect devices in networking, telecommunications, and audio systems. It is a terminated and moulded electrical cable with plugs and connectors used to connect electrical devices like computers, switches, routers, and patch panels to a power source. These cords are commonly used in appliances and equipment and are factory fitted. Due to their modular nature, they are safe and a clear choice for all appliance manufacturers for supplying main line power to their products. These cords are essential in structured cabling systems because they offer flexibility and make it easier to adjust network configurations.



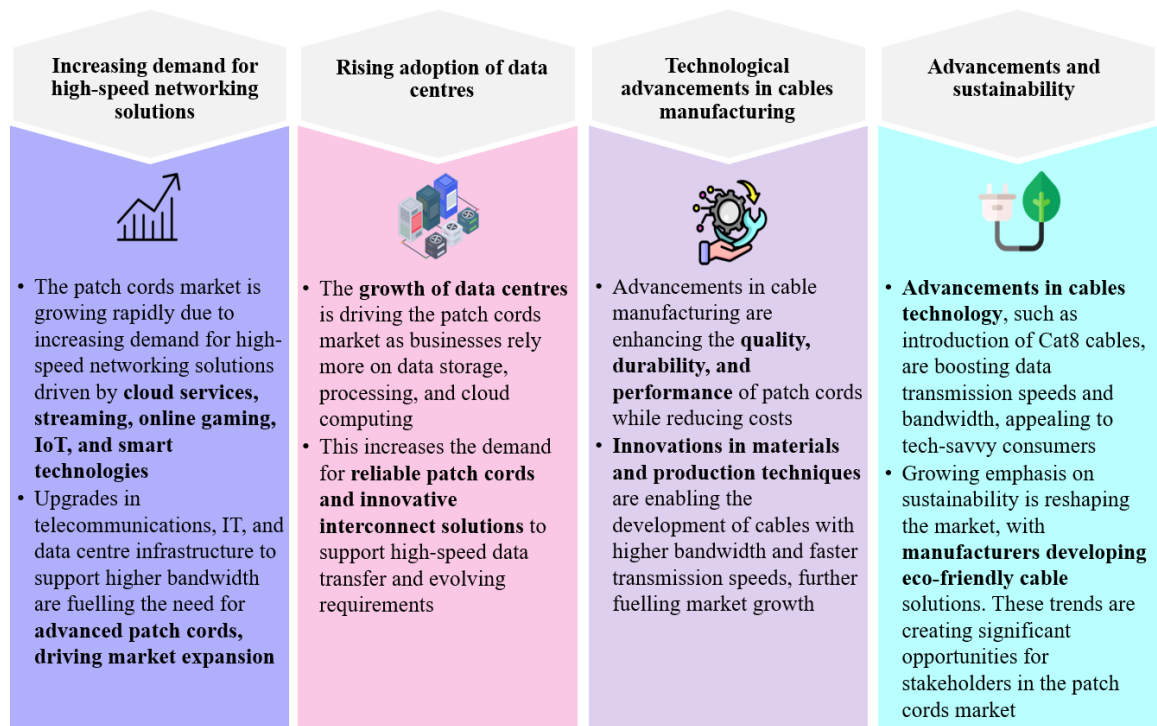
The Indian patch cords market is valued at ~INR 10.1B in FY26 and is expected to grow at a CAGR of ~16.6% from FY26 to FY31, reaching ~INR 21.8B by FY31. The market is witnessing innovation in patch cord designs, including enhanced durability and compatibility with advanced network technologies. The availability of customized solutions is helping manufacturers cater to diverse industry needs, thereby strengthening their market presence.

Indian patch cords market
(INR B, FY19-31P)



Source(s): IILattice analysis

9.2.1 Patch cords: key growth drivers and trends



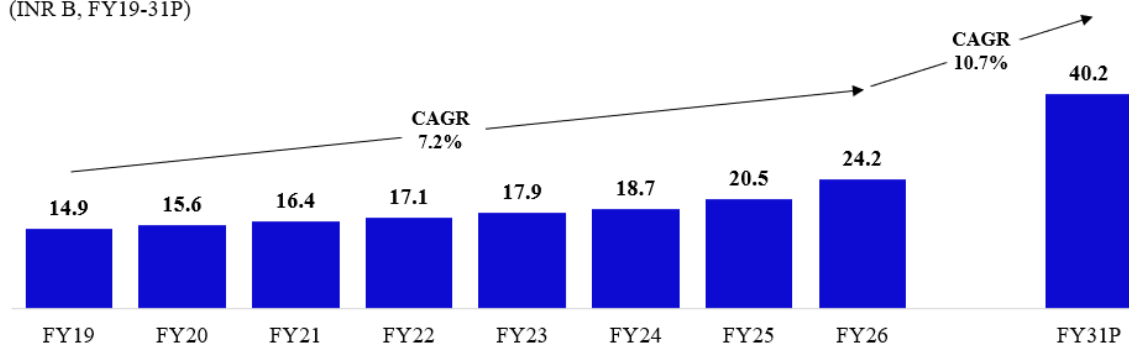
The rise in internet usage, the expansion of cloud computing, and the growth of data centres are fuelling the demand for patch cords. As industries seek higher bandwidth and improved network performance, patch cords are in greater demand, especially with the trend toward fibre-optic cables and higher-speed ethernet standards. Furthermore, the growing emphasis on structured cabling systems, as well as advancements in manufacturing technologies that allow for cost-effective, high-quality patch cords, are contributing to market growth.

9.3 Overview of solar junction boxes market in India

Solar junction box is a component attached to every solar panels, serving as the interface between the panels and electrical cable network. It houses the wiring terminals, providing a secure connection and often includes bypass diodes to maintain the current flow if a panel is shaded or damaged. The primary function of the solar junction box is to direct the current and protect the electrical connections that transmit the generated electricity from the solar cells to the battery storage system or inverter. It acts as the central hub where the solar panel’s output is gathered and transmitted.



Indian solar junction boxes market (INR B, FY19-31P)

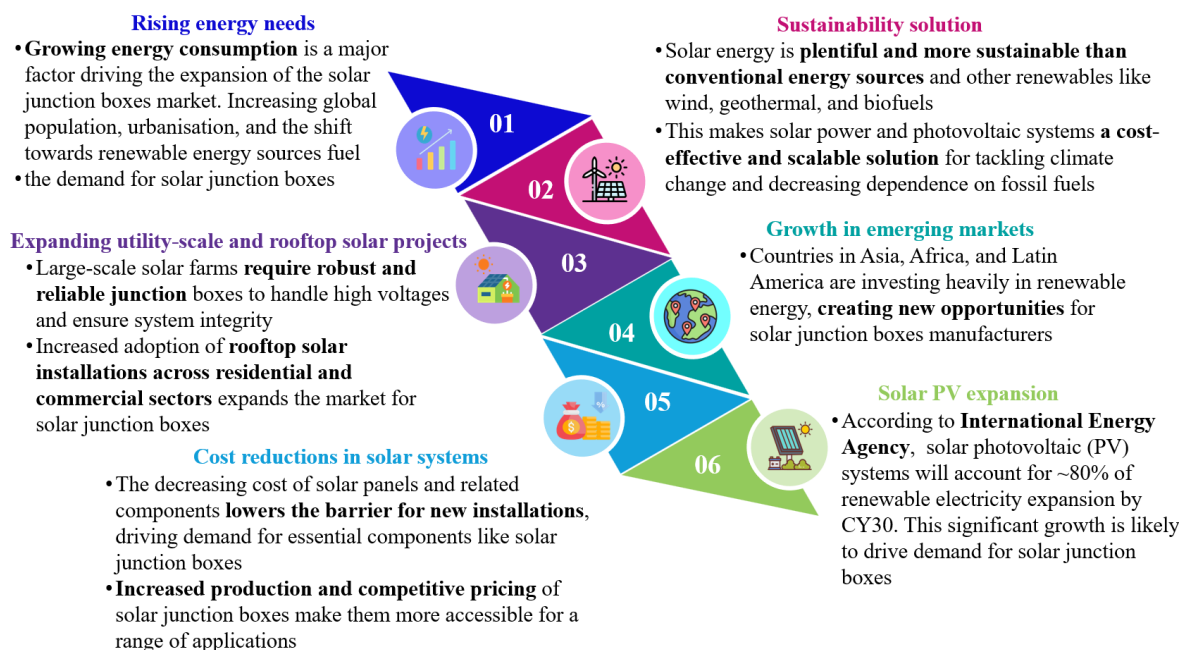


Source(s): ILLattice analysis

The Indian market size for solar junction boxes reached ~INR 24.2B in FY26, an increase from ~INR 14.9B in FY19, reflecting a CAGR of ~7.2%. The market is projected to grow to ~INR 40.2B by FY31, expanding at a CAGR of ~10.7% from FY26 to FY31.

9.3.1 Solar junction boxes: key growth drivers and trends

The growth of the solar junction boxes market is directly proportional to growth of solar panel production. Solar energy has a huge demand due to increasing global energy consumption, fuelled by population growth and urbanization, alongside a significant shift toward renewable energy. Rising adoption of rooftop solar installations and large-scale solar farms, coupled with declining solar panel costs, has further boosted demand. Competitive pricing and advancements in production technology have made solar junction boxes more accessible. As solar energy emerges as a vital solution to reduce dependence on fossil fuels and combat climate change, the market is poised for sustained expansion.



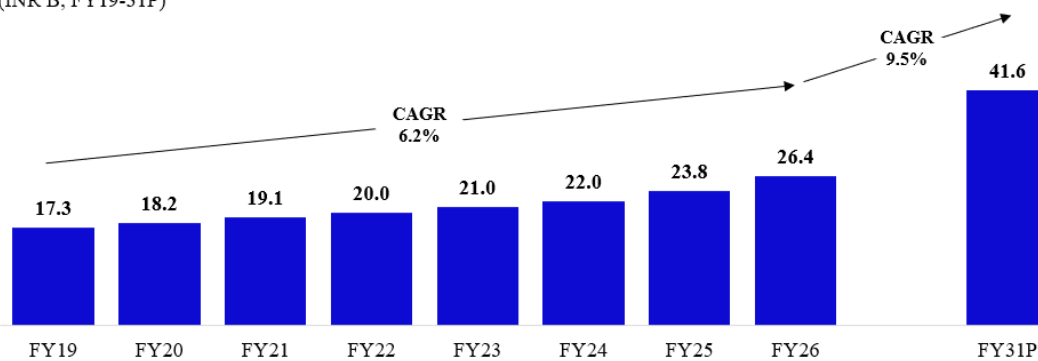
9.4 Overview of power strips market in India

Power strips or extension cords are electrical devices designed to allow users to plug multiple electronic devices into a single wall outlet. They can be with or without USB ports. These devices consist of a length of cables with a set of sockets, typically ranging from three to eight, enabling multiple gadgets to be powered simultaneously from one outlet. This makes them especially useful in homes, offices, and other spaces where numerous devices need to be connected but power outlets are limited.



A key feature of power strips is that they provide multiple outlets, allowing users to connect various electronic devices simultaneously. In addition, some models include an on/off switch that acts as a master control, enabling users to turn off all connected devices with a single flip. This can help save energy and reduce the risk of overheating when the connected devices are not in use.

Indian power strips market
(INR B, FY19-31P)



Source(s): ILattice analysis

The power strips market in India has grown significantly over recent years. From a valuation of ~INR 17.3B in FY19, the market has expanded at a CAGR of ~6.2%, reaching ~INR 26.4B by FY26. The market is expected to grow at a CAGR of ~9.5%, with an estimated market size of ~INR 41.6B by FY31.

9.4.1 Power strips: key growth drivers and trends

The growing number of electronic devices in homes and workplaces, including smartphones, smart TVs, gaming consoles, computers, and printers, is driving fuelling demand for power strips. As remote work and home offices become more common, professionals require reliable power solutions to manage devices efficiently. Power strips help reduce cable clutter, improve safety, and support organized workspaces. Additionally, the rising need for protection against voltage spikes and surges has led to a surge in demand for surge-protected power strips, offering vital protection for sensitive electronics, ensuring data integrity, and reducing the risk of electrical damage and fires.

Increased device usage	Remote work and home office setups	Surge-protected power strips
 • Rise in electronic devices at home and offices is driving demand for power strips. Gadgets like smartphones, smart TVs, and gaming consoles are boosting popularity of power strips equipped with multiple outlets • In workplaces, power strips help manage equipment like computers and printers by reducing cable clutter, improving safety, and simplifying cable management, making them a practical solution for both home and office use	 • The transition to remote work and home offices has significantly increased the demand for power strips • Professionals require dependable power solutions for computers, monitors, and personal devices, making power strips essential for efficient power management • They extend wall outlets, minimise cable clutter, and support flexible, organised workspaces, contributing to the growth of the power strips market	 • As electronic devices increase in value, the demand for protection against voltage spikes and surges have intensified • Surge-protected power strips are becoming increasingly popular for safeguarding sensitive electronics from electrical damage, ensuring data integrity, and mitigating safety risks such as electrical fires • This heightened awareness is driving demand for surge-protected power strips among both consumers and businesses

9.5 Overview of EV charging cables market

India's electric vehicle (EV) landscape is undergoing a major shift, driven by rising fuel costs, growing environmental concerns, and a strong policy push toward clean mobility. EV sales in the country are projected to rise from 0.1M units in CY20 to ~16M by CY30, reflecting a CAGR of about 47.4% in the period CY25-30. This shift towards electrification will create the need for reliable and widespread EV charging infrastructure. To support growing EV adoption, it will be critical to grow the EV charging infrastructure. This growth will be beyond just setting up charging stations, with the need to upgrade to the supporting electrical ecosystem, particularly in the area of charging cables.

EV charging cables ensure efficient and safe energy transfer between the charging station and the vehicle. These cables are specially engineered to handle varying voltage levels, high power loads, and environmental factors, making them quite different from traditional power cables. These cables are designed to meet the unique demands of EV infrastructure and fall into two key categories:

- **AC charging cables:** Commonly used for home chargers and slow public charging points. These require flexibility, strong insulation, and resistance to wear and tear from frequent handling.
- **DC fast charging cables:** Deployed at commercial or highway locations, these are built to handle high power loads and must endure considerable thermal and mechanical stress.

To ensure quality, EV charging cables should meet strict criteria: they require superior insulation, flexibility, heat and UV resistance, and compliance with global safety standards (like IEC 62893 and ISO 17409). Additionally, as charging systems become more integrated with the power grid and smart technologies, there is a growing demand for communication and control cables (e.g., fibre-optic or shielded twisted pair cables) alongside power cables.

For cable manufacturers, this evolving segment presents a high-value growth opportunity. As the market transitions from commodity cables to technologically advanced, high-margin products, companies that can deliver certified and reliable EV cable solutions are well-positioned to become key players in the ecosystem.

Strategic partnerships with EV manufacturers, charging station operators, and infrastructure developers are becoming critical. While global players have already introduced specialised EV cable portfolios, Indian manufacturers are still in the early stages. However, there is growing interest in tapping both domestic demand and international markets, especially as global standards begin to align. Despite the opportunity, challenges remain, ranging from limited domestic sourcing of specialised raw materials to the need for ongoing R&D investment and the complexity of adhering to

international certification and safety standards. Still, EV charging cables represent one of the most dynamic and promising segments within India's cables industry, with strong potential over the next decade.

10. Summary of markets

Summary of all key markets across segments like networking cables, fibre-optic cables, solar e-beam, and others has shown strong growth.

Summary table										
Segment	Global					India				
	CY18 (US\$ B)	CY25 (US\$ B)	CY30P (US\$ B)	CAGR CY18-25	CAGR CY25-30P	FY19 (INR B)	FY26 (INR B)	FY31 (INR B)	CAGR FY19-26	CAGR FY26-31P
Networking cables	8.9	16.6	26.2	9.2%	9.6%	14.5	35.9	84.5	13.8%	18.7%
Fibre-optic cables	5.9	12.4	21.9	11.1%	11.9%	39.1	105.0	233.1	15.2%	17.3%
Solar e-beam	0.6	8.8	15.7	47.6%	12.3%	3.2	53.6	266.7	49.3%	37.8%
Keystone jacks	NA	NA	NA	NA	NA	5.6	10.9	19.4	10.0%	12.2%
Patch cords	NA	NA	NA	NA	NA	4.9	10.1	21.8	10.9%	16.6%
Power strips	NA	NA	NA	NA	NA	17.3	26.4	41.6	6.2%	9.5%
Solar junction box	NA	NA	NA	NA	NA	14.9	24.2	40.2	7.2%	10.7%
Total	15.4	37.8	63.8	13.7%	11.0%	99.5	266.1	707.3	15.1%	21.6%

Source(s): I Lattice analysis

11. Operational & financial benchmarking

Orient Cables is one of India's leading manufacturers of networking cables and allied products in terms of the range of products manufactured, as of March 31, 2026. Established in 2005 and commenced operations in 2006, the company is one of the youngest amongst its peers and has a global presence across 8 countries. Orient cables have consistently been increasing manufacturing capacity, and as of March 31, 2026 and has a manufacturing capacity of 794,976 kms* of cable.

The company supplies to top customers across telecom, resellers, broadband, data centre and government sectors, and also provides highly customised solutions tailored to specific customer needs. Orient cables caters to 2 out of the top 3 telecom companies by revenue as on 31 March 2026. The company began as a networking cable manufacturer and has expanded its presence in Optical Fibre Cables, Power Cables and keystone jacks. Given keystone jacks natural synergies with networking cables, this segment offers a logical and accessible growth opportunity for Orient Cables (India) Ltd.

It is now venturing into new products including E Beam Cables, Solar Junction Box, Tethered Drone and Harnesses, which have wide applications in high growth sectors including broadband, telecom, renewables, data centre, E-mobility, FMEG real estate (smart homes, offices, security and surveillance), cable resellers and government sectors such as railways and defence, aerospace and railways. These products have higher margins as compared to the margins of existing products of Orient Cables.

The products offered by Orient Cables are cost-competitive when compared to China giving it an advantage in international and domestic markets**. Orient cables is the first in India to receive the BIS certification for symmetrical pair / quad cables for digital communications. Orient cables is among the early movers in India to develop tethered cable and box system. It has one of the most comprehensive range of products across the industry. As a result, Orient Cables has seen a rise in their market share^ from ~16% in FY22 to ~25.5% in FY26 on revenue basis.

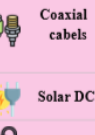
Orient Cables (India) Limited competitors include Birla Cable Limited, Sterlite Technologies Limited, Finolex Cables Limited, Polycab India Limited, KEI Industries Limited, Havells India Limited, RR Kabel Limited, Paramount communications Limited and Belden India Pvt Ltd

*Annualized capacity as of 31 March 2026.

**This is based on price benchmarking against pricing sourced from large Alibaba vendors supplying UL CMR- and ETL-approved, EL-certified cables, which indicates a broadly similar cost structure between Chinese manufacturers and Orient Cables

***Market share is calculated basis revenue from networking cables divided by networking cable market size.

11.1 Operational benchmarking

Parameter																
	 Year of establishment		2005	1992	2001	1958	1964	1976	2006	1968	1983	1999	1962	1987	1955	
		Cat 5e	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✗	✗	✗	
		Cat 6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	
		Cat 6A	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✗	
	 Optic Fiber cables		✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✓	✗	✓	
		CCTV	✓	✓	✗	✓	✓	✗	✓	✓	✓	✓	✓	✗	✗	✓
		RG series	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓
	 Solar DC wire		✓	✓	✗	✓	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓
	 Power cables		✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓
		 Total capacity (per month)		66,248 km*	50,217 km**	NA	12,00,000 km*	5,00,000 km	NA	NA	2,16,558 km*	NA	3,72,500 km*	10,329 km**	35,08,000 km*	NA
	Certifications		ISO 9001:2015	ISO/IEC 17025:2017	ISO 9001	ISO 9001:2005	ISO 9001:2015	ISO 14001:201	ISO 14001:2015	ISO 9001	ISO 9001	ISO 9001	ISO 45001:2018	ISO 9001:2015	ISO 45001:2018	
			ISO 14001:2015	ISO 45001:2018	ISO IEC-17025	ISO 14000:2005	ISO 14001:2015	ISO 9001:2015	ISO 45001:2018	ISO 50620:2017+A1	ISO 45001	ISO 9001:2015	ISO 10002:2018	ISO 9001:2015		
			ISO 45001:2018	ISO 22301:2019	ISO 14001	ISO 45001:2005	ISO 45001:2018	ISO 9001:2015	ISO IEC 62893-1+A1,2,3:2017	BIS compliance	ISO 14001:2015	ISO 45001:2018	ISO IEC 17025:2017	ISO 14001:2015		
			Intertek ETL	ISO 14021	ISO IEC 27001	ISO IEC 27001	ISO 50001:2018	ISO IEC 27001	ISO IEC 17001	ISO IEC 62930:2017	ISO IEC 2024-06	ISO IEC 17025:2017	ISO IEC 17025:2017	ISO IEC 17025:2017		
			CAT6A	9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015		
			LSZH	ISO 14001:2015	ISO 14001:2015	ISO 14001:2015	ISO 14001:2015	ISO 14001:2015	ISO 14001:2015	ISO 14001:2015	ISO 14001:2015	ISO 14001:2015	ISO 14001:2015	ISO 14001:2015		
			Intertek ETL	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015		
			CAT6 LSZH	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015		
			Intertek ETL	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015		
			CAT6 PVC	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015		
			UL 444 & CSA	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015		
			BIS – Symmetrical pair cables	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015		
			ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015	ISO 9001:2015		
			ISO 14001:2015	ISO 14001:2015	ISO 14001:2015	ISO 14001:2015	ISO 14001:2015	ISO 14001:2015	ISO 14001:2015	ISO 14001:2015	ISO 14001:2015	ISO 14001:2015	ISO 14001:2015	ISO 14001:2015		
			ISO 45001:2018	ISO 45001:2018	ISO 45001:2018	ISO 45001:2018	ISO 45001:2018	ISO 45001:2018	ISO 45001:2018	ISO 45001:2018	ISO 45001:2018	ISO 45001:2018	ISO 45001:2018	ISO 45001:2018		
	Domestic		TBD	89%	16%	99%*	95%	NA	NA	87%*	96%	74%	94%	90%*	69%*	
	Outside India		TBD	11%	84%	1%*	5%	NA	NA	13%*	4%	26%	6%	10%*	31%*	
	B2B		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	B2C		✗	✗	✗	✓	✓	NA	NA	✓	✓	✓	✗	✗	✓	
EPC revenue as % of total revenue				0.0%	0.0%	0.0%	0.0%	5.8%	NA	NA	4.0%*	0.0%	0.0%	31.0%*	39.0%*	0.4%*

Note(s): *FY25 data showcased, **FY24 data showcased

Source(s): Annual reports, Investor presentations, Company websites, Investor transcripts | Lattice analysis

11.2 Financial benchmarking

Orient Cables is one of the fastest growing players in the wires and cables industry with a revenue CAGR of ~33.45% from FY24-26, while the average revenue CAGR of its peers was ~17.27% during FY24-26. The company has the highest ROE amongst its peers in both FY25 and FY26, while maintaining a high ROCE of 36.46% and 23.82% in FY25 and FY26, respectively, indicating operational efficiency. It has one the lowest net working capital days in the industry in FY26 and FY25 when compared to the peers. This reflects its efficient use of capital and high-capacity utilization. As EPC share is more than ~30% for Universal and HFCL they are not like to like competitors, so they are not included in financial benchmarking.

Company name	Revenue from operations CAGR
	(FY24-26)
Orient Cables (India) Ltd	33.46%

Birla Cable Ltd	6.06%
Sterlite Technologies Ltd	7.80%
Finolex Cables Ltd	12.28%
Polycab India Ltd	26.54%
KEI Industries Ltd	20.28%
Havells India Ltd	10.08%
RR Kabel Ltd	21.42%
Paramount Communications Ltd	33.69%
Belden India Pvt Ltd	NA

Parameters	Company	FY24	FY25	FY26	Q1FY27
Revenue from operations (INR M)	Orient Cables (India) Ltd ^a	6,577.67	8,249.58	11,716.54	4,891.56
	Birla Cable Ltd	6,854.98	6,616.52	7,711.14	2,666.37
	Sterlite Technologies Ltd	40,830.00	39,960.00	47,450.00	19,100.00
	Finolex Cables Ltd	50,143.90	53,188.90	63,210.10	20,131.50
	Polycab India Ltd	1,80,394.44	2,24,083.13	2,88,837.92	82,097.32
	KEI Industries Ltd	81,207.28	97,358.77	1,17,477.65	31,853.42
	Havells India Ltd	1,85,900.10	2,17,780.60	2,25,277.70	65,181.90
	RR Kabel Ltd	65,945.70	76,182.33	97,223.59	31,682.00
	Paramount Communications Ltd	10,706.02	15,756.00	19,133.50	5,294.00
	Belden India Pvt Ltd	3,256.05	4,352.07	NA	NA
EBITDA (INR M)	Orient Cables (India) Ltd ^b	588.24	838.58	963.97	548.87
	Birla Cable Ltd	554.45	357.90	507.52	NA
	Sterlite Technologies Ltd	5,270.00	4,520.00	6,280.00	3,970.00
	Finolex Cables Ltd	5,880.00	5,410.00	6,200.00	2,850.00
	Polycab India Ltd	24,918.00	29,602.00	40,057.00	11,362.00
	KEI Industries Ltd	8,862.00	10,628.00	13,876.00	4,150.00
	Havells India Ltd	20,920.00	NA	NA	NA
	RR Kabel Ltd	4,628.00	4,876.00	7,702.00	2,853.00
	Paramount Communications Ltd	972.60	1,343.70	1,175.00	378.00
	Belden India Pvt Ltd	NA	NA	NA	NA
EBITDA Margin (%)	Orient Cables (India) Ltd ^c	8.94%	10.17%	8.23%	11.22%
	Birla Cable Ltd	8.09%	5.41%	6.58%	NA
	Sterlite Technologies Ltd	12.91%	11.31%	13.23%	20.79%
	Finolex Cables Ltd	11.70%	10.20%	9.80%	14.20%
	Polycab India Ltd	13.81%	13.21%	13.87%	13.84%
	KEI Industries Ltd	10.92%	10.92%	11.81%	13.04%
	Havells India Ltd	11.25%	NA	NA	NA
	RR Kabel Ltd	7.00%	6.40%	7.90%	9.00%
	Paramount Communications Ltd	9.02%	8.47%	6.14%	7.10%
	Belden India Pvt Ltd	NA	NA	NA	NA
PAT (INR M)	Orient Cables (India) Ltd ^d	400.69	533.21	538.13	332.17
	Birla Cable Ltd	221.42	48.91	169.03	306.95
	Sterlite Technologies Ltd	-570.00	-1,230.00	560.00	1,970.00
	Finolex Cables Ltd	6,516.90	7,007.70	7,137.20	2,490.40
	Polycab India Ltd	18,029.17	20,455.37	27,084.27	7,966.54

	KEI Industries Ltd	5,807.33	6,964.14	9,184.33	2,741.40
	Havells India Ltd	12,707.60	14,702.40	16,892.50	2,897.10
	RR Kabel Ltd	2,981.30	3,116.11	4,922.19	2,052.00
	Paramount Communications Ltd	856.32	869.70	597.50	197.00
	Belden India Pvt Ltd	-108.35	20.90	NA	NA
PAT Margin (%)	Orient Cables (India) Ltd ^e	6.03%	6.41%	4.55%	6.77%
	Birla Cable Ltd	NA	NA	NA	NA
	Sterlite Technologies Ltd	-1.70%	-1.80%	1.20%	NA
	Finolex Cables Ltd	10.90%	13.20%	11.30%	12.40%
	Polycab India Ltd	10.00%	9.10%	9.40%	9.70%
	KEI Industries Ltd	7.16%	7.15%	7.82%	8.61%
	Havells India Ltd	6.84%	6.75%	7.50%	4.44%
	RR Kabel Ltd	4.50%	4.10%	5.10%	6.50%
	Paramount Communications Ltd	7.90%	5.50%	3.10%	3.70%
	Belden India Pvt Ltd	-3.33%	0.48%	NA	NA
ROE (%)	Orient Cables (India) Ltd ^f	37.26%	34.60%	25.84%	13.17%
	Birla Cable Ltd	NA	NA	NA	NA
	Sterlite Technologies Ltd	NA	NA	NA	NA
	Finolex Cables Ltd	12.00%	14.20%	13.70%	NA
	Polycab India Ltd	24.17%	22.54%	24.58%	NA
	KEI Industries Ltd	20.00%	16.00%	15.00%	NA
	Havells India Ltd	NA	NA	NA	NA
	RR Kabel Ltd	18.30%	15.70%	20.80%	NA
	Paramount Communications Ltd	18.59%	12.95%	NA	NA
	Belden India Pvt Ltd**	0.11%	0.01%	NA	NA
ROCE (%)	Orient Cables (India) Ltd ^g	41.13%	36.46%	23.82%	10.36%
	Birla Cable Ltd	NA	NA	NA	NA
	Sterlite Technologies Ltd	4.20%	3.30%	9.40%	NA
	Finolex Cables Ltd	13.80%	15.60%	13.60%	NA
	Polycab India Ltd	29.42%	28.35%	31.32%	NA
	KEI Industries Ltd	27.00%	25.00%	24.00%	NA
	Havells India Ltd	NA	NA	NA	NA
	RR Kabel Ltd	21.50%	19.50%	25.80%	NA
	Paramount Communications Ltd	13.66%	NA	NA	NA
	Belden India Pvt Ltd	1.08%	4.82%	NA	NA
Net Debt to Equity	Orient Cables (India) Ltd ^h	0.23	0.63	0.94	0.95
	Birla Cable Ltd	0.66	0.43	0.47	NA
	Sterlite Technologies Ltd	1.39	0.68	0.50	0.39
	Finolex Cables Ltd	NA	NA	NA	NA
	Polycab India Ltd	-0.20	-0.15	-0.27	NA
	KEI Industries Ltd	0.00*	0.00*	0.00*	0.00*
	Havells India Ltd	0.00*	0.00*	0.00*	NA
	RR Kabel Ltd	0.11	0.00	0.06	NA
	Paramount Communications Ltd	0.15	0.00*	NA	NA
	Belden India Pvt Ltd	NA	NA	NA	NA

Net Debt to EBITDA	Orient Cables (India) Ltd ⁱ	0.49	1.36	2.31	4.67
	Birla Cable Ltd	2.97	3.02	2.57	NA
	Sterlite Technologies Ltd	4.47	2.99	1.80	NA
	Finolex Cables Ltd	NA	NA	NA	NA
	Polycab India Ltd	-0.67	-0.49	-0.82	NA
	KEI Industries Ltd	0.20	0.20	0.10	NA
	Havells India Ltd	0.00*	NA	NA	NA
	RR Kabel Ltd	0.45	0.01	0.19	NA
	Paramount Communications Ltd	0.99	0.01	NA	NA
	Belden India Pvt Ltd	NA	NA	NA	NA
Net working capital days	Orient Cables (India) Ltd ^j	14	27	48	46
	Birla Cable Ltd	150	NA	NA	NA
	Sterlite Technologies Ltd	-146	NA	NA	NA
	Finolex Cables Ltd	55	NA	NA	NA
	Polycab India Ltd	58	60	48	NA
	KEI Industries Ltd	71	NA	NA	NA
	Havells India Ltd	37	37	37	40
	RR Kabel Ltd	64	56	49	50
	Paramount Communications Ltd	155	101	NA	NA
	Belden India Pvt Ltd	9	NA	NA	NA
Gross fixed asset turnover	Orient Cables (India) Ltd ^k	8.44	6.56	5.81	2.02
	Birla Cable Ltd	3.99	3.21	3.56	NA
	Sterlite Technologies Ltd	0.83	0.79	0.91	NA
	Finolex Cables Ltd	6.62	6.33	NA	NA
	Polycab India Ltd	5.42	5.67	5.89	NA
	KEI Industries Ltd	10.00	9.74	NA	NA
	Havells India Ltd	5.92	5.76	4.95	NA
	RR Kabel Ltd	9.29	8.60	7.77	NA
	Paramount Communications Ltd	6.05	6.76	NA	NA
	Belden India Pvt Ltd	1.69	NA	NA	NA

*basis available data

Notes related to peers:

- (1) All the financial for the industry peers mentioned above is on a consolidated basis unless stated otherwise and is sourced from the annual reports, audited financial results and investor presentations as available of the respective company for the relevant year submitted to the Stock Exchanges, NA refers to Not Applicable where the financial information is unavailable i.e. not reported by the industry peers in either their annual reports, audited financial results and investor presentations as submitted to the Stock Exchanges.
- (2) 2 Y CAGR (Revenue from Operations) (%) is calculated as $(\text{Revenue from operations during the Fiscal 2026} / \text{Revenue from Operations during Fiscal 2024})^{(1/n)} - 1$. n= no. of years.
- (3) EBITDA Margin is calculated as EBITDA divided by Revenue from Operations for Polycab India Limited, Havells India Limited, Birla Cables Limited. EBITDA Margin is calculated as EBITDA divided by Total Income for Paramount Communications Limited.
- (4) PAT Margin refers to Net Profit/ Revenue from Operations for Havells India Limited.
- (5) Net Working Capital Days calculated as Inventory Days + Receivable Days - Payable Days where days have been calculated as 365 divided by respective turnover ratio. Refers to consolidated metrics for Polycab India Limited. Refers to Standalone metrics for KEI Industries Limited, Birla Cables Limited, Sterlite Technologies Limited and Finolex Cables Limited.
- (6) Net Debt to Total Equity is calculated as Net debt divided by the Total Equity. Net debt and Total Equity are considered as reported in respective financial information.

- (7) Net Debt to EBITDA is calculated as Net debt divided by the EBITDA.
- (8) Gross Fixed Asset Turnover Ratio is calculated as Revenue from Operations/ Gross Fixed Assets where Gross Fixed Assets include Average Gross Carrying Value of Property Plant and Equipment only.
- (9) Figures for the three months ended June 30, 2026 are not annualised.

Notes related to Orient cables:

- a. Revenue from Operations means the revenue from operations as appearing in Restated Consolidated and Standalone Financial Information.
- b. 2 Y CAGR (Revenue from Operations) (%) is calculated as $(\text{Revenue from operations during the Fiscal 2026} / \text{Revenue from Operations during Fiscal 2024})^{(1/n)} - 1$. n= no. of years.
- c. EBITDA is calculated as profit / (loss) for the year, plus total tax expense for the year, finance costs and depreciation and amortization expenses, excluding other Income.
- d. EBITDA Margin is calculated as EBITDA divided by Revenue from Operations.
- e. PAT refers to Profit / (Loss) for the year attributable to owners of the parent as appearing in Restated Consolidated and Standalone Financial Information.
- f. PAT Margin (%) is calculated as Profit / (Loss) for the year attributable to owners of the parent divided by Total Income.
- g. ROCE is Return on Capital Employed as appearing in Restated Consolidated and Standalone Financial Information.
- h. ROE refers to Return on Equity as appearing in Restated Consolidated and Standalone Financial Information.
- i. Net Working Capital Days are calculated as Inventory Days + Trade Receivable Days – Trade Payable Days. Inventory days are calculated as Average Inventories divided by Revenue from Operations multiplied by 365. Trade Payable days are calculated as Average Trade Payables/ Net Credit Purchases *365. Trade Receivable Days are calculated as Average Trade Receivables/Revenue from Operations *365.
- j. Net Debt/ Equity is calculated as Net Debt divided by Total Equity where Net Debt refers to Total Borrowings (Both Non-current and current) and lease liabilities (Both Non-current and current) less Cash and Cash equivalents.
- k. Net Debt/EBITDA is calculated as Net Debt divided by EBITDA where Net Debt refers to Total Borrowings (both non-current and current) and lease liabilities (both non-current and current) less Cash and Cash equivalents.
- l. Gross Fixed Asset Turnover Ratio is calculated as Revenue from Operations/ Gross Fixed Assets where Gross Fixed Assets include Average Gross Carrying Value of Property Plant and Equipment only.
- m. Figures for the three months ended June 30, 2026 are not annualised.

**ROE is calculated on standalone financial statements for Belden India Pvt Ltd.

Source: Company annual reports

11.3 Key threats and challenges faced by the industry

- **Rising commodity prices:** Fluctuations in the cost of raw materials like copper, aluminium, and polymers increase production expenses, squeezing profit margins. This unpredictability makes long-term planning and pricing strategies challenging for manufacturers
- **Rising competition:** Intensifying competition from domestic and global players drives down prices, impacting profitability. Differentiated technology offered by players can help in creating a strong footing in market for the player and ensure profitability, even with the rising competition
- **Advancement in technology:** Rapid technological advancements demand continuous innovation and investment in R&D. Manufacturers face the risk of obsolescence if they fail to keep up with evolving customer needs and emerging technologies
- **Slower adoption of fixed broadband or fiberisation of towers:** Delayed infrastructure projects and slower demand for high-performance cables reduce revenue opportunities. This slower adoption can also hinder long-term growth projections in the telecommunication segment
- **Volatility in currency exchange rate:** The fluctuation in the rupee-dollar exchange rate presents a significant challenge for the wires and cables (W&C) industry. Many players rely on importing raw materials like aluminium and insulation materials due to cost and quality advantages. However, exposure to exchange rate volatility can drive up overall costs, ultimately affecting profit margins

- **Risk of Starlink technology disruption:** Starlink's satellite internet technology could pose a risk to the traditional wires and cables industry by offering a viable alternative for internet access, particularly in remote areas. This alternative could potentially reduce the demand for fixed wireless equipment (FWA) and the need for extensive fibre optic network deployments, impacting businesses involved in those sectors

Key threats and challenges faced by the Company

- **Retention of existing client:** Ability of the company to retain existing customers and generate higher revenue from the same customers over a longer period of time. As it would be time consuming to onboard new client and build trust compared to retain existing customers
- **Dependence on suppliers:** As of FY26, top 10 supplier provide ~70% of raw materials. It poses a concentration risk, as any disruption—such as pricing disputes, supply chain issues, or contractual termination—could impact operations. It also reduces the company's bargaining power and flexibility in sourcing, potentially affecting margins and continuity
- **Dependence on contract labour:** High dependence on contract labour can lead to operational vulnerabilities, especially during labour strikes, high attrition, or regulatory changes. It may also impact product quality and consistency due to limited control over workforce training and retention.



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