



WHO WE ARE

We are India's leading R&D-driven telecom and networking product company, founded in 2000, with over 900 employees. Tejas is India's first deep-technology product company to be publicly listed in the Indian Stock Exchanges. We are a part of the Tata Group, with Panatone Finvest Ltd. (a subsidiary of Tata Sons Pvt. Ltd.) being the majority shareholder.



WHAT WE DO

We design and manufacture high-performance wireline and wireless networking products for telecommunications service providers, internet service providers, utilities, defence and government entities in over 75 countries.



OUR VISION

To build a pioneering, innovation-driven, global telecom and networking product company.



OUR MISSION

To innovate leading-edge, yet pragmatic, telecom and networking products that provide the highest value to our customers world-wide.

KEY HIGHLIGHTS OF FINANCIAL YEAR 2021-22

TATA

Panatone Finvest Limited
(subsidiary of Tata Sons)
acquires a majority stake
in Tejas Networks

ORDER BOOK



at an all-time high of
Rs 1175 crores
(YoY increase of 73%)

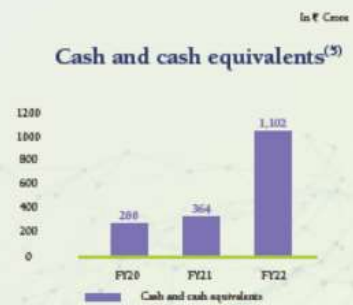
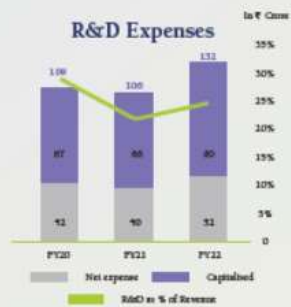
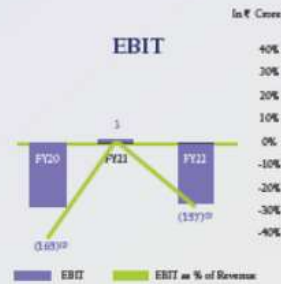
Ssankhya Labs 

Tejas Networks announces
acquisition of Ssankhya
Labs (P) Ltd. to enhance
its wireless products
offering

SUCCESSFUL INDIGENOUS 4G OFFERING

Tejas Networks delivered
4G Radio Access Network
equipment (Base Stations)
for this initiative

Financial Trends



I'm very pleased that Tejas Networks is now part of the Tata group. As a values-driven business group with a strong commitment to nation-building, for over a century the Tata group helped propel our country into the rank of industrialized nations through its foray into core businesses. The Tata group has always entered businesses or supported initiatives which are considered important and necessary for our country. In line with this philosophy, the group has recognized the need for having an indigenous telecom stack and is working towards orchestrating a modern solution for the telecom industry at large. In doing so, the objective is to build a world class telecom OEM, capitalizing on the end-to-end group capabilities in software and system integration, design and manufacturing of electronic sub-systems and telecom equipment, in which your company will serve as the centerpiece.

Globally over the last few years, especially with the onset of the Covid-19 pandemic, always-on broadband connectivity to homes and businesses has emerged as an essential service like electricity, gas, and water. This opportunity, coupled with Government of India's vision for 'Atmanirbhar Bharat' with policies like PMI (Preference to Make in India), PLI (Production Linked Incentives) and the Trusted Sources Mandate, provides the right environment for design and development of indigenous technology and use of domestically manufactured telecom products like ours.

In FY22, I am happy to inform that your company was declared eligible under the PLI scheme as well as the Trusted Sources mandate, which would help in growing our domestic market share in both public and private sector procurements.

As a part of our strategy to build a competitive end-to-end portfolio of products, your company has now entered the 'wireless' product segment in addition to the 'wireline' segment which has been our strength thus far. As a part of this initiative, we have already launched and demonstrated an end-to-end indigenous 4G/LTE network for a leading telecom service provider in the country and we will soon be ready for deploying equipment for 5G as well. This strategy is further strengthened by the acquisition of Saankhya Labs Pvt Ltd., which enables your company to be a strong player in the 'broadcast' domain and become an active player for wireless, broadband and broadcast segments, as the industry enters the 'convergence' era.

In summary, your company is poised to be a scale player of global reach with a competitive portfolio of products supported by best-in-class R&D and innovation. India is a large home market for us, which will give us the volumes and economies-of-scale. We will build from there and target to expand our international presence offering modern, efficient and innovative telecom network equipment. This would entail us building a strong manufacturing ecosystem in India, an agile back-office and support operation, backed by world-class team and processes.

- Net revenues were at ₹ 551 Crore- YoY growth of 6.9%
- Profit After Tax was (₹ 63) Crore
- Net Working Capital increased to ₹ 492 Crore, primarily due to increased inventory.
- Our order book and the end of the year was ₹ 1175 Crore, out of which around 70% is expected to be realized revenues in FY23.

In FY22, the global chip shortage emerged as a key challenge for the entire telecom equipment industry and despite our taking advance actions for high-value chips, we could not deliver as per plan due to increase in lead times and non-availability of components. Since component shortages and supply chain disruption are likely to continue even during FY23, we have already taken advance inventory ordering actions to fulfill our strong order book and be ready to address the growth opportunities ahead of us. We continue to work closely with our chip suppliers, who believe in our potential to be a large global OEM from India, and are willing to give us appropriate priority in their component allocation in the current constrained environment.

The cash position of the company remains strong at ₹ 1,102 Crore cash and cash equivalents with no debt, ensuring that we are adequately covered to invest and meet our aggressive growth plans over the next few years.

Technology and Products

Being in the technology business, we continued to maintain our focus on R&D and innovation, to ensure that we invest to build globally competitive products. During the year we invested 24% of our revenues (on fully expensed basis) on R&D, making us one of the top spenders of R&D amongst listed companies in India. In the wireline segment, in order to cater to the ever increasing demand for carrying high-speed data, we

strengthened our optical transport portfolio with 400G/600G speed interfaces, which enable our customers to build multi-terabit backbone networks. To cater to the demand of high-speed home broadband, we have enhanced our FTTX (Fiber To the Home) products based on GPON and XGS-PON technologies, both for the OLT as well as the ONT devices. We also continued to invest in building secured switches for applications such as smart cities, safe cities and other critical infrastructure.

On the wireless side, we upgraded our 4G LTE Radio Access Network (RAN) base station product to meet the technical requirements of a large pan-India mobile operator in India. We successfully completed the Proof-of-Concept (PoC) and are well positioned to win large orders in the coming years. We see the 5G as a large opportunity for growing our business, since there will be significant network rollouts by telecom operators as well as enterprises. Our 4G LTE base station has been designed to be upgradable for 5G.

As a part of our strategy for accelerating our wireless product development, we announced the acquisition of Saankhya Labs Pvt Ltd., a Bangalore based startup, on March 30th, 2022. Saankhya Labs is synergistic to our business and expands our offering in 5G Open RAN (O-RAN), 5G broadcast and satellite applications. Saankhya also has strong chip design expertise and have developed their own chip, which is used for satellite and wireless equipment. Our wireless product development efforts will get strengthened by the addition of over 250 highly skilled R&D engineers from Saankhya, having experience in wireless system design, hardware, software as well as chip design. Saankhya's 73 patents coupled with their in-house hardware and software IPR will also enhance our IPR portfolio.

India Business

In FY22, business from Indian customers, including both government and private sector clients, contributed 64% of our net revenues compared to 60% in FY21. India-Government business grew 8.7% year-on-year (YoY) and contributed 17% of our net revenues of which business from BSNL/MTNL constituted 5% while critical infrastructure business the remaining 12%. In FY22, we had multiple tender wins in BSNL and MTNL for our wireline products namely, DWDM and GPON. We successfully completed 4G RAN proof of concept (POC) testing for BSNL's 4G tender where we are participating as a consortium partner along with TCS and CDOT. We continued to maintain strong momentum in our critical infrastructure segment with multiple new orders from power, railways, oil & gas sectors.

In FY22, India-Private business contributed 47% of our net revenues with a YoY growth of 14.9%. We are an incumbent supplier to all major telcos in India and expect to see an uptick in our FY23 business, based on our wins in new applications areas

capacity upgrades as they prepare for 5G rollouts and as a GPON equipment supplier for their fiber broadband deployments. We registered several wins with our system integration partners for our Ethernet switches in smart/safe cities, campus network and bank connectivity opportunities.

With 5G spectrum auctions to be completed during 1H2022, we expect to see a multi-year capex spend cycle for building both wireline and wireless infrastructure. Besides deployments of next-generation radio products, 5G will also require significant increase in cell-site fiberization and augmentation of optical backbone capacities which augur well for our business.

We are witnessing strong positive tailwinds from "Atmanirbhar Bharat" policies in India's telecom sector. In FY22, the company was approved under the PLI scheme for Telecom and Networking products. In terms of meeting security requirements, all our products have been approved under the Trusted Sourcing norms defined by Government of India. Going forward, with Government of India's increasing thrust on the use of trusted products in both public and private networks, as well as design-led manufacturing, we believe that our company with world-class, indigenously designed products will have a great opportunity to play a key role in the "Atmanirbhar Bharat" mission for telecom.

International Business

On a YoY basis, international business declined marginally and contributed 36% of our net revenues in FY22 compared to 40% in FY21. Broadly speaking, our international sales are generated from four regions; (a) Africa and Middle East, (b) South and South-East Asia, (c) Europe and (d) Americas. The telecom network requirements of service providers in the developing economies of Asia and Africa closely mirror those of Indian telcos, thus enabling us to leverage our success in the Indian market to expand in these regions.

In FY22, we continued to gain traction in DWDM, OTN and FTTX segments in Africa and Middle East region which is witnessing strong investment activity in broadband networks and large-scale build-outs by web-scale companies. Besides winning large business from a single pan-Africa Carrier of Carriers, the company also signed-up multiple customers in the West Africa region including a new Tier-1 operator in Nigeria. Our FY22 revenues from the South and South East Asia region declined on account of weak order flow as multiple RFPs got pushed out to next fiscal year. In FY23, we are well positioned for expansion opportunities in existing accounts for our wireless and optical products. Our sales activity in the Americas is mainly focused on USA and Mexico. There was an uptick in our USA business as we signed up a large Tier-1 OEM for our MSPP products while Mexico saw reduced order flow. In Europe we registered our first multi-million dollar win for our DWDM and FTTX products. We have multiple ongoing



As a Tata Group company, with a widening product portfolio and an expanding array of opportunities, I feel confident that the company's next phase of growth will be both exciting and rewarding for all of us.



Tejas 1.0 (2000-2010)

- Started in year 2000 by first-generation entrepreneurs, backed by world-class VC/PE investors. Founding team included Sanjay Nayak (CEO & MD), Dr. Kumar Sivarajan (CTO) and Amob Roy (President - Optical)
- Launched TJ100 STM-1 Multiplexer and introduced a range of STM-1/4/16 MSPPs. Launched STM-64 and Carrier Ethernet products; obtained MEF CE1.0 certification and was the first to demonstrate a commercial version of ERPS standard at Carrier Ethernet World Congress (CEWC)
- Executed global OEM agreement with Nortel Networks
- Built end-to-end product lifecycle processes - technology, sales, customer support and manufacturing operations
- 80,000+ products shipped with deployments in 25+ countries

Tejas 2.0 (2010-2020)

- First deep-tech, product company to get publicly listed in India in 2017
- Increased presence in Indian and global markets
- Expanded product portfolio beyond optical transmission; added broadband access on fiber (FTTX) and fixed wireless (LTE)
- Crossed important milestone of 500,000 product shipments with deployments in 75+ countries
- Strong customer endorsement in the form of run-rate, repeat business from existing customers
- Emerged as a global top-10 vendor in Optical Aggregation and #1 in India

Tejas 3.0 (2020-Till date)

- Part of the Tata Group, with a vision to be a scale player of global reach with a competitive portfolio of products supported by best-in-class R&D and innovation
- Established as the leading Indian telecom equipment company with a wide range of wireline and wireless products
- Emerged as a globally leading vendor in FTTX and WDM segments
- Supplier of indigenous 4G/LTE base stations for the successful BSNL 4G Proof-of-Concept (PoC)
- Acquired Saankhya Labs to enhance 5G mobile and broadcast product offerings
- Rich IP portfolio of 350 patents, 300+ silicon IP and millions of line of field-proven software

Strong Focus on Technology and R&D

Applications

- 5G-Ready RAN and Backhaul
- Home & Office Broadband
- 4G/5G Mobile Broadband
- Metro/Core Transport
- Enterprise & Wholesale Services
- Data Center Interconnect
- Rural Broadband
- Critical Infrastructure

Product Segments

- Wireline Optical Transport, FTTX
- Wireless RAN, Fixed & Mobile Wireless Access (4G/5G)
- Secure Ethernet/IP Switches
- Network Management Software

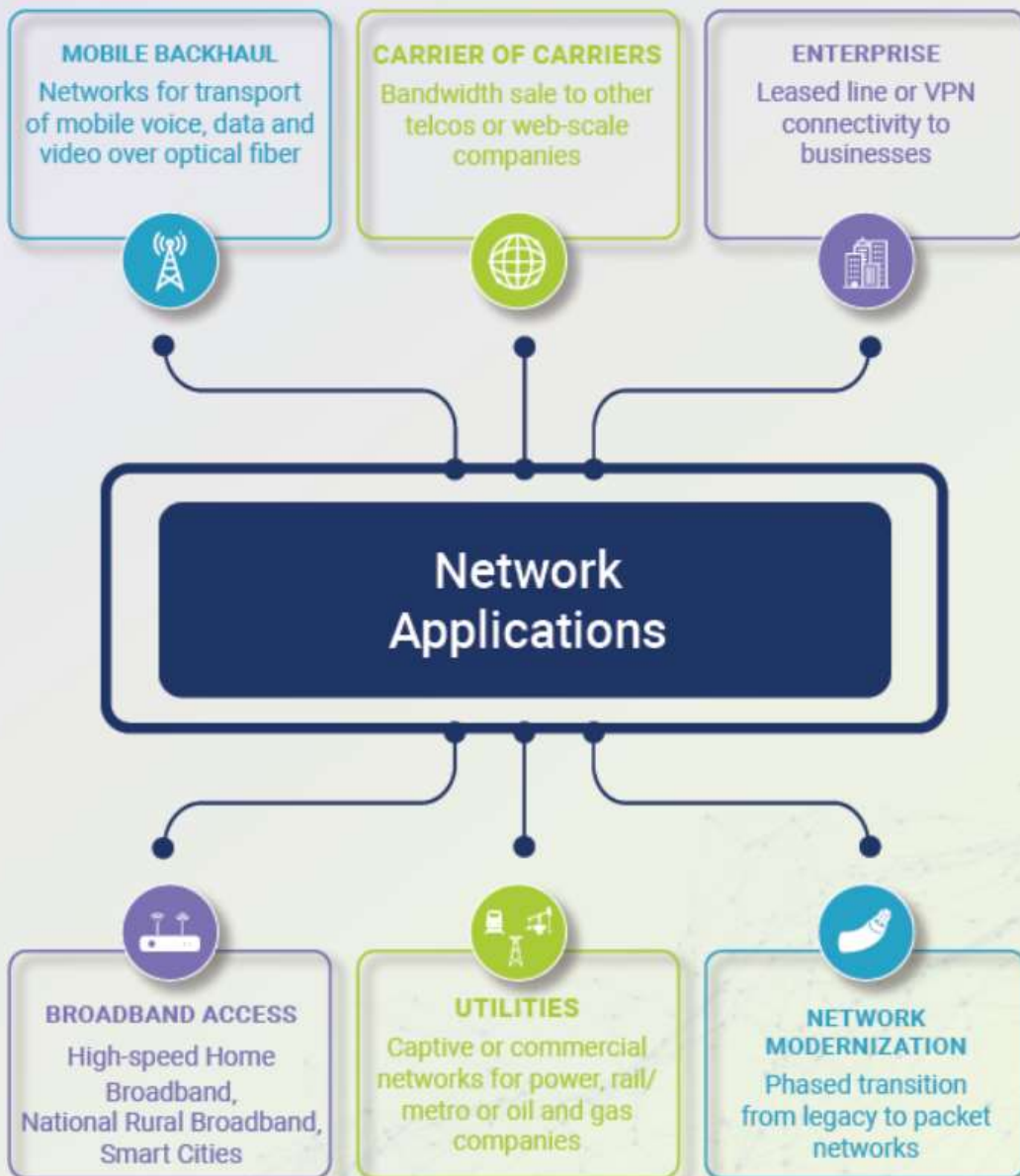
Deep-Technology Expertise

- PTN
- OTN
- DWDM
- xPON
- LTE/LTE-A
- SDH/SONET
- Ethernet
- SDN
- IP/MPLS
- RF/Radio

Skillsets, Design, IPR, Proven Experience

- Network Protocols
- Embedded Software
- FPGA Design
- High-speed Board Design
- Design for Manufacturing/ Test
- 350 Patents
- 300+ Silicon IPs
- >3M Lines of Code
- 40+ Products
- 700,000+ Systems Shipped

Network Applications Where We Win



Proven Innovation

TJ1400 - World's First Ultra-Converged Broadband Access Platform

TJ1400 Ultra-Converged product is one of the industry's most feature-rich platforms that brings in wireline and wireless convergence to realize significant savings in capex and opex. It is designed for cost-optimized delivery of mobile backhaul, wired broadband access and wireless broadband access in areas where fiber penetration is impossible. It provides redundancy, low power consumption, and high service scale in a compact next-generation platform.

GPON/XGS-PON

4G/5G
Wireless RAN

Ethernet/MPLS-TP/
TDM/Circuit Emulation



Applications

- Enterprise Data Services & Mobile Backhaul
- Optical Fiber Access
- Licensed Wireless Access (4G/5G)
- Network Modernization



Media

- Wireless
- Fiber
- Copper

Awards



Our Latest Innovation

The only product to support 4G/5G Radio Access Network for Fixed Wireless Access as well as Mobile Broadband, along with xPON, Ethernet, Circuit Emulation and Optical Transport.

Our Sustainable Competitive Advantages

Software-Defined Hardware™

Programmable silicon eases feature upgrades, incorporation of new standards and protocols



Future Ready Products

Support multiple technology generations from the same shelf (2G/3G to 4G/5G)



Ultra-Converged Broadband Access/Edge

Any Media, Any Service, Any Technology



Innovative Business Model

Asset-light manufacturing, with cost-efficient india-based R&D with low operating costs, delivers superior financial performance



Strong technology team influencing and tracking new standards, driving innovation and aligning product roadmap with market needs

Innovative Business Model



Global Telecom Industry: Positive Growth Drivers

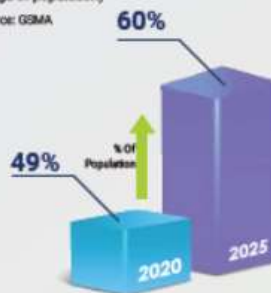
Mobile Data Traffic

Growth Factor: 3.9x
Source: Ericsson



Internet Penetration

(% of population)
Source: GSMA



IoT Connections

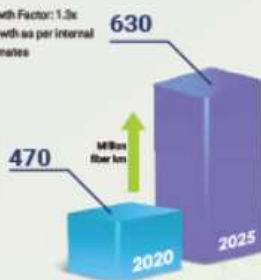
Growth Factor: 2.5x
Source: GSMA



Telecom Networks are now an essential infrastructure for
Digital society and Economy

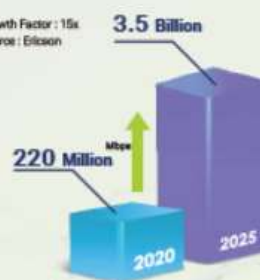
Fiber Rollout

Growth Factor: 1.3x
*growth as per internal estimates



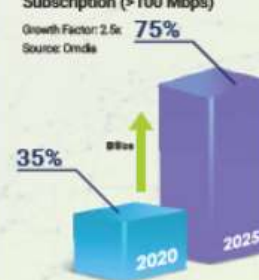
5G User Base

Growth Factor: 15x
Source: Ericsson



High-speed Broadband Subscription (>100 Mbps)

Growth Factor: 2.5x
Source: Omdia



Growth of high-speed broadband, 5G, softwarization of telecom networks, and the emerging geo-political situation, are the key macro trends driving our business

Our Growth Strategy

Create a Global-Scale, Telecom Product Company from India

Create world-class products for building end-to-end networks

- Hire & attract top-notch talent; Retain current talent.
- Acquire companies and teams to expand products, technology, IPR and customers

Leverage India's large home market to get economies-of-scale

- Gain market share; new 5-year capex cycle driven by 5G & Broadband rollouts.
- Play a key role in the national mission to be "Atmanirbhar" in telecom sector.

Expand international business

- Leverage Tata brand strength, synergies and deep customer relationship with global telcos.
- Increase market share in emerging markets, with a larger product portfolio & sales.

Build a global-scale operation

- Build a strong manufacturing operation, leveraging India's PLI scheme.
- Create strong back-end for global technical support for pre/post sales, from India

Tejas Addressable Wireline
Equipment TAM
2022/2027

India : \$0.9B / 1.7B
Global : \$15.2B / 32.7B

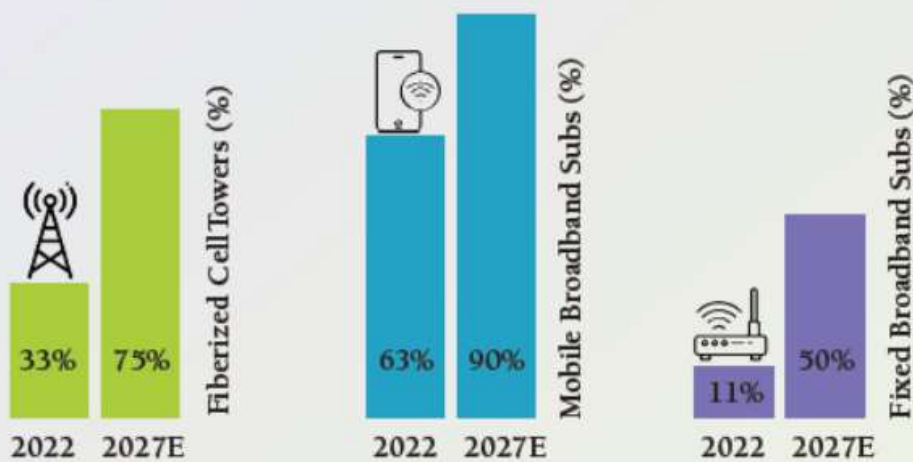
Tejas Addressable Wireless
Equipment TAM
2022/2027

India : \$0.08B / 4.4B
Global : \$2.4B / 30.5B

Benefit from Data and Broadband Growth in India

High-speed connectivity is an enabler of business continuity and resilience, it is the engine of E-commerce, plays a key role in the information economy and the much needed access to telehealth and citizen safety. India is steadily racing towards fulfilling the Digital India vision. Over the last two decades, India has transitioned from a voice-centric telecom market to the world's largest carrier of mobile data traffic. With a huge pent-up demand for fiberization and home broadband, today India is one of the fastest growing optical equipment markets in the world.

Telcos and service providers have accelerated the pan-India rollout of FTTx home and enterprise broadband networks, Cell-site fiberization as well as investments in backbone capacity expansion is on the rise.



India Government

- BharatNet fiber broadband to every village; 650000 villages to be covered in the coming years
- BSNL's pan-India 4G network rollout including both wireless and optical transmission infrastructure

India Private

- Increase in FTTx rollouts and network capacity expansion. Expansion of 4G and impending launch of 5G
- Selected by 2 Tier-1 telcos for pan-India FTTx rollouts on GPON
- Selected by 2 Tier-1 telcos for OTN and DWDM products for Metro, Long-haul capacity augmentation

Critical Infrastructure

- With Cybersecurity as a key concern, preference for domestic vendors in utility, defense and smart / safe city projects
- Growing demand for FTTx, PTN, DWDM and Ethernet services

Large International Market Opportunity

Asia (ex-china)



Africa, Middle East & Europe



Americas



Design-led Manufacturing

Dedicated to designing and developing high-performance and cost-competitive products, we maintain absolute control throughout the production chain at our state-of-the-art manufacturing facility. Built over 72,000 square feet, the entire production plan – from assembly, system integration, and testing to packaging – is designed to meet global quality standards.



A glance at our manufacturing and storage facilities

