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	Total Issue Size : ₹290.00 Cr	Fresh Issue : ₹290.00 Cr	Offer for Sale : ₹0.00 Cr
	Price Band : ₹275 to ₹290	IPO Date : 07 Jan - 09 Jan	Listing Date : 14 Jan

About Company: Quadrant Future Tek is a research-oriented company specializing in the development of next-generation Train Control and Signaling Systems for the Indian Railways' KAVACH project, enhancing passenger safety and reliability. The company also operates a speciality cable manufacturing facility with an Electron Beam Irradiation Centre, producing cables for the railway, naval, solar, and electric vehicle industries. Its facility in Village Basma, Tehsil Banur, District Mohali, is equipped for manufacturing, testing, research, and development of speciality cables and hardware for its Train Control & Signalling Division. Quadrant's competitive advantage lies in its technology-driven approach, operational efficiency, quality control, and experienced team, which drives innovation and indigenously developed solutions. As of October 31, 2024, the company employed 295 people across various functions.

SWOT ANALYSIS

STRENGTHS:

The company is focused on expanding its presence in niche markets such as aerospace, defense, and renewable energy, offering specialized cable solutions. With significant investments in research and development, particularly in advanced cables for electric vehicles and solar energy, it maintains a technological edge. The company's diverse product portfolio, including specialty cables and train control systems, broadens its revenue streams. Additionally, its leadership in high-performance Electron Beam Cross Linked cables gives it a competitive advantage in markets requiring high safety and durability specifications.



WEAKNESSES:

Dependence on Single Manufacturing Facility: The company relies on one manufacturing facility, making it vulnerable to any disruptions or shutdowns, which could adversely affect its business, financial condition, and operations. Industry Disruptions: The company's markets are subject to rapidly changing technologies, customer preferences, and lower manufacturing costs. Disruptions in these industries could negatively impact the company's performance and prospects.

Legal and Operational Risks: The company faces risks from potential promoter disputes, SEBI compliance issues, and ongoing legal proceedings, including criminal cases, impacting its operations and reputation.

OPPORTUNITIES:

The company has significant potential for expansion into new geographical regions and sectors such as defense and renewable energy. Government initiatives like "Make in India" and the increased focus on infrastructure are expected to drive demand for its products. The company is also investing in technological advancements, including IoT and smart technology products, to open new market opportunities. Additionally, strategic partnerships and collaborations with other tech firms or academic institutions could further enhance the company's product offerings and market reach. The company's growth is supported by India's increased naval defense spending and expanding renewable energy sector. The 11% rise in the Navy's capital outlay boosts demand for specialty power cables, while the growth of solar energy plants and transmission systems offers significant opportunities for the company.



THREATS:

The company faces multiple threats in both the train control systems and specialty cables markets. High capital costs for infrastructure, integration challenges, and land acquisition hinder growth in train control systems. The market is also dominated by a few key players, making it difficult for new entrants to succeed. Additionally, the complex and evolving nature of Indian Railways requires extensive R&D for system safety and adaptability. In the specialty cables market, intense competition and the risk of technological obsolescence could affect market share and pricing. The reliance on specific raw materials or components exposes the company to supply chain disruptions. Furthermore, any failure in train control systems or technology upgrades could damage the company's reputation and operational stability.





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Initial Public Offer

Objectives of the Issue :

The Company proposes to utilise the Net Proceeds from the Issue towards the following objects:

- Funding long-term working capital requirements of the Company;
- Capital expenditure for the development of Electronic Interlocking System;
- Prepayment or repayment of all or a portion of outstanding working capital term loan availed by the Company; and
- General corporate purposes. **KEY HIGHLIGHTS:**

Company's Engagement in KAVACH Project and Key Order Secured

The company is engaged in developing next-generation Train Control and Signaling Systems under the KAVACH project for Indian Railways. It has secured a purchase order from Chittaranjan Locomotive Works for the supply, installation, testing, and commissioning of On-board KAVACH equipment in 1,200 locomotives, with an aggregate value of ₹978.61 crore.

Exclusive MOU with RailTel and Train Control & Signalling Division Capacity The company has entered into an exclusive MOU with RailTel to target specific opportunities related to the KAVACH project within Indian Railways and other international railway systems. For its Train Control & Signalling division, the company boasts an installed capacity of 4,492 Station TCAS, 2,264 Locomotive TCAS, and 3,744 Remote Interface Units.

In-House Design and Product Development Capabilities for Rail Signalling Solutions The company has dedicated Railway Signalling and Embedded System Design centers in Bengaluru and Hyderabad, employing 28 people (9.49% of the workforce as of October 2024). These centers specialize in developing advanced, cost-competitive Automatic Train Protection systems. The company has also developed a software-driven Train Collision Avoidance System for Indian Railways, focusing on performance, reliability, and autonomy. Their 60,000 sq. ft. manufacturing facility in Basma, Mohali, Punjab, supports the Train Control and Signalling Division and produces a custom Train Collision Avoidance System that meets RDSO requirements.

Legal and Compliance Risks

The company faces potential risks from promoter disputes, despite a previous litigation being resolved, as similar conflicts could disrupt operations in the future. Additionally, ongoing delayed compliance issues with SEBI, involving Vivek Abrol and Mohan Krishan Abrol, may harm the company's reputation if resolved unfavorably. Furthermore, the company, along with its directors and promoters, including Aikjot Singh, is involved in legal proceedings, some criminal in nature and linked to an accidental death, which could impact its operations and reputation.

Valuation and Investment Recommendation

The company has demonstrated impressive financial growth, with a Revenue/EBITDA/PAT CAGR of 20.6%/96.5%/175.2% from FY22 to FY24, reaching Rs 152 crore, Rs 37 crore, and Rs 15 crore, respectively. It leads among peers with an EBITDA margin of 24.1% in FY24, coupled with competitive return ratios. The Indian Specialty Cable and Train Control System market is forecasted to grow at CAGRs of 9.8% and 12.7%, respectively, from CY24E to CY30E, providing a solid growth outlook. Quadrant's strategic MoU with RailTel Corp. for the KAVACH project and a recent Rs 978.6 crore order from Chittaranjan Locomotive Works further strengthens its market position as a premier OEM. The company also specializes in innovative technologies like Electron Beam Cross Linked polymers, enhancing product durability and performance across key sectors, including railways, defense, and electric vehicles. With infrastructure developments and government support such as INR 557 crore funding for KAVACH, Quadrant is well-positioned for continued growth. Despite its higher valuation compared to some peers, with a PE ratio of 79x and an EV/EBITDA of 34x, this is justified by its strong market position, robust financial performance, an impressive ROE of 33%, and significant project wins, ensuring sustainable growth prospects. Therefore, we recommend investors subscribe to the issue.













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COMPANY OVERVIEW

SPECIALITY CABLE DIVISION

The company specializes in electric and control cables for demanding industries such as railway rolling stock, naval defense, aerospace, aviation, solar and wind energy, and electric vehicles, focusing on fire safety, low weight, and durability.

Two primary wire crosslinking methods are used: chemical crosslinking (CV/Continuous Vulcanization) and irradiation crosslinking. Chemical crosslinking involves heat, pressure, and peroxides, which can leave residual impurities affecting long-term properties. Irradiation crosslinking, using an electron beam (e-Beam), avoids these drawbacks, enhancing performance characteristics like tensile strength, chemical resistance, and thermal stability for harsh environments.

E-Beam technology accelerates electrons to modify material properties without additives or hazardous by-products, offering an energy-efficient process with minimal exposure time, high throughput, and precise dose control. This advanced method ensures superior cable durability and reliability across challenging applications.

TRAIN CONTROLS & SIGNALLING DIVISION

Indian Railways has transitioned from European Train Control System (ETCS) standards to adopting KAVACH as the national Automatic Train Protection (ATP) system under the Atmanirbhar Bharat initiative. Developed indigenously by the Research Designs and Standards Organisation (RDSO), KAVACH prioritizes Make in India, offering cost-effective and locally manufactured solutions. Indian Railways has planned significant investments in KAVACH and signalling technologies over the next five years to enhance safety, security, and capacity without requiring new tracks.

To support higher train speeds and densities, which increase revenues, reduce travel times, and improve passenger comfort, modernized signalling systems with robust embedded designs and Safety Integrity Level-4 (SIL-4) compliance are essential. These systems integrate advanced technologies such as AI, machine learning, and wired/wireless communication.

The company boasts state-of-the-art infrastructure for Train Control and Signalling Systems, including:

A dedicated Software Engineering Centre in Bangalore.

Embedded Design and Signalling Project Design Centre in Hyderabad.

Fully automated electronic manufacturing with integrated online testing.

Automated Testing and Simulation Centre for safety-critical systems development.

These facilities enable the company to contribute to the modernization and safety of Indian Railways.

Revenue by Business Segments

			f total revenue f	rom operations
Particulars	30-Sep-24	31-Mar-24	31-Mar-23	31-Mar-22
Wires and Cables (Railways)				
In <mark>dian R</mark> ail <mark>way</mark> s (Zonal railways / divisions / prod. units)	37.10%	47.36%	48.27%	53.95%
Private Sector (other than Group Companies)	17.20%	13.72%	6.32%	8.87%
Private Sector (Group Companies)	36.99%	15.94%	20.09%	34.19%
Sub total (A)	91.29%	77.02%	74.68%	97.02%
Wires and Cables (Defence)				
Public Sector Undertakings	2.86%	22.24%	24.16%	2.92%
Private Sector (other than Group Companies)	0.00%	0.00%	0.00%	0.00%
Sub total (B)	2.86%	22.24%	24.16%	2.92%
Wires and Cables (Solar segment) (C)	0.00%	0.00%	0.00%	0.00%
Wires and Cables (Electric vehicle segment) (D)	0.00%	0.00%	0.00%	0.00%
Train Control & Signalling Division				
Indian Railways	4.14%	0.00%	0.93%	0.00%
Sub total (D)	4.14%	0.00%	0.93%	0.00%
Other income from operations (F)	1.72%	0.75%	0.23%	0.06%
Total Revenue (A+B+C+D+E+F)	100.00%	100.00%	100.00%	100.00%





BUSINESS OPERATIONS

TRAIN COLLISION AVOIDANCE SYSTEM (KAVACH)

Indian Railways' focus on increasing train speeds aims to reduce passenger travel time and maximize the utilization of existing infrastructure, boosting revenues. This requires modern signalling systems to ensure safety at high speeds.

To support this initiative, Quadrant has developed the Train Collision Avoidance System (TCAS), a cutting-edge Railway Traffic Management solution. TCAS prevents collisions by automatically applying brakes if trains exceed speed limits, pass signals at danger, or approach unsafe zones. It uses track-mounted devices and data from station interlocking systems to identify train locations and maintain a safe minimum distance of 5 km between trains. TCAS continuously updates Movement Authority and provides critical information to the locomotive pilot, including speed, location, and signal aspects. It

also generates automatic and manual SOS messages during emergencies. With SIL-4 certified communication for stationary and locomotive TCAS units, TCAS ensures robust safety and operational reliability while addressing the demands of modern high-speed rail operations.



Figure 5: Flowchart of TCAS Sub-Systems

Train Collision AvoidanceSystem (Kavach):

Key features of TCAS

- Prevention of SPAD (Signal passing at danger)
- Train Trip when a train passes a stop signal at ON or End of Authority
- Control of Speed at PSR (Permanent Speed Restriction)
- Speed regulation while approaching Loop Lines
- Display of Signal Aspect
- Display of Distance to approaching Signal
- Display of Movement Authority (MA)
- Supervision of Maximum train speed
- Supervision of shunt movement
- Protection of Rollback
- Prevention of Head-On Collision
- Prevention of Rear-End Collision
- Prevention of Collision due to Unusual Stoppage in Block Section
- Manual SOS Generation/cancellation Feature in Station TCAS
- Manual SOS Generation/Cancellation Feature in Loco TCAS
- Automatic whistling on the approach of Level Crossing Gate







Key Performance Indicators:					
Particulars	30-Sep-24	31-Mar-24	31-Mar-23	31-Mar-22	
Revenue from operations	651.37	1,517.56	1,528.04	1,042.58	
Total revenue	651.35	1,518.23	1,529.45	1,042.91	
EBITDA	8.17	366.68	265.49	95.08	
EBITDA margin (%)	1.25%	24.15%	17.36%	9.12%	
Operating EBITDA	8.19	366	264.08	94.75	
Operating EBITDA (%)	1.26%	24.11%	17.28% 🦯	9.09%	
Profit after tax	-120.05	146.92	138.16	18.94	
PAT margin (%)	-18.50%	9.68%	9.04%	1.82%	
Return on Equity (ROE)(%)	-37.45%	33.41%	47.03%	12.17%	
Debt to Equity Ratio	3.05	1.86	2.52	5.19	
Debt Service Coverage Ratio	0.1	3.66	4.16	1.6	
Return on Capital Employed (ROEC)(%)	-10.34%	26.12%	27.20%	8.43%	
Current Ratio	1	1.18	1.19	1.45	
Net Capital Turnover Ratio	14.37	18.32	11.85	8.29	
0	F2.				

Name of the Shareholder	No. of Equity Shares	As a % of pre-issued Capital	
Promoters			
Mohit Vohra	35,00,000	11.67	
Amit Dhawan	35,00,000	11.67	
Amrit Singh Randhawa	39,35,000	13.12	
Rupinder Singh	54,00,000	18	
Vishesh Abrol	21,70,155	7.23	
Vivek Abrol	25,43,515	8	
Aikjot Singh	15,00,000	5	
Rajbir Singh Randhawa	16,40,000	5.47	
Subtotal (A)	2,41,88,670	80.63	
Promoter Group			
Mohan Krishan Abrol	20,06,310	6.69	
Swinder Kaur	8,90,000	2.97	
Navneet Kaur	5,35,000	1.78	
Vipin Abrol	2,80,020	0.93	
Parminder Kaur	1,00,000	0.33	
Subtotal (B)	38,11,330	12.7	
Grand Total (A) + (B)	2,80,00,000	93.33	









Satish Gupta, Independent Chairman

Satish Gupta, aged 64, holds a B.Com (Hons) degree from Delhi University and is an Associate Member of the Institute of Cost Accountants of India. With nearly 29 years of experience across various industries in corporate functions, he has held notable positions in esteemed organizations. His career includes roles at Yamaha Motor India, Moser Baer India Limited, and Tata Power Solar Systems Limited, where he superannuated as Chief Financial Officer. Following his retirement, he worked in an advisory capacity before joining Alpex Solar Limited as Chief Financial Officer on September 18, 2023. Subsequently, he was appointed as an Additional Director on July 29, 2024. Currently, he serves as the Independent Chairman of the company, bringing a wealth of expertise and leadership to the organization.

Mohit Vohra, Managing Director

Mohit Vohra, aged 49, is a Mechanical Engineer from the YMCA Institute of Engineering, Faridabad. With over 26 years of experience, he has an extensive background in multinational corporations such as Thermax Limited, Pouyet Communication India Private Limited, and Tyco Electronics Corporation India Private Limited. In 2009, he embarked on his entrepreneurial journey by establishing MV Electrosystems Limited. Over the years, he expanded his business portfolio to include ventures like MV Mobility Limited, MV Greentech Private Limited, and Iboard India Limited, where he also serves as a Director. Additionally, he is a partner in Prime Electronics. Mohit Vohra joined the company as a Director on August 16, 2017, and was later designated as Managing Director effective March 01, 2024. At Quadrant, he oversees Research and Development and marketing for the Train Controls and Signalling Division, alongside his responsibilities as Managing Director. His expertise and visionary leadership contribute significantly to the company's growth and innovation.

Surendranath Bopparaju, Technical Director

Surendranath Bopparaju, Technical Director, has over 30 years of experience. He holds bachelor's and master's degrees in science from Osmania University and an M.Tech in Artificial Intelligence and Robotics from the University of Hyderabad. Since joining the company on January 01, 2022, he has led the development of railway signaling products, including TCAS and EIS, as per RDSO specifications. Previously associated with HBL Power Systems Limited, he received a remuneration of ₹4.00 million in Fiscal 2024.

Suresh Kumar Bopparaju, Advisor - Train Control System Division

Suresh Kumar Bopparaju, Advisor - Train Control System Division, has 20 years of experience and holds a Master's degree in Electrical Communication Engineering from the Indian Institute of Science, Bangalore. Associated with the company since April 01, 2021, he oversees overall system design for Train Control Systems products and manages manpower recruitment. Previously, he worked with Green Robot Machinery Private Limited, Ananya High-Tech Farms Private Limited, and Cisco Systems India Private Limited. In Fiscal 2024, he received a remuneration of ₹5.00 million.

Raghavendra Pasupuleti, Director - System Engineering

Raghavendra Pasupuleti, Director - System Engineering, has over 15 years of experience. He holds a bachelor's degree in Science from Nagarjuna University, a diploma in Information Technology from Birla Institute of Information Technology, Hyderabad, and a certification in Embedded Systems from the National Small Industries Corporation Limited. Since joining the company on April 01, 2021, he has been responsible for software and firmware development for the Train Control Systems Division and managing safety-critical projects. Previously, he worked with Alstom Transport India Limited, Checksum Infosoft Private Limited, HBL Power Systems Limited, Spectrochem Instruments Private Limited, and Zen Technologies Limited.



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PEERS ANALYSIS :

Competitive analysis with a publicly listed Company					
Particulars (₹ Mn) FY24	Quadrant Future Tek Ltd.	HBL Engineering Ltd	Kernex Micro Systems Ltd.	Polycab India Ltd.	Apar Industries Ltd.
Market Cap.	11,200	1,75,410	24,300	10,99,170	4,23,600
Revenue from operations	1,518	22,334.00	196	1,80,394	1,61,530
EBITDA	366	4,414	-195	27, <mark>12</mark> 7	16,087
EBITDA Margin (%)	24%	20%	-99%	15%	10%
PAT		2,791.00	-258	17,927.00	8,061.00
PAT Margin	10.0%	12.0%	-131%	10.00%	5.00%
ROCE (%)	26%	32%	-23%	30%	35%
P/S	7.38	7.79	27.9	5.46	2.47
EPS	3.81*	11.8	-6.35	119	212
EV/EBITDA	33.9	35.3	-3,638	39.1	25.6
PE ratio	76.13	50.7	NA	61.3	49.9
RONW (%)	33%	22.87%	-24.16%	21.90%	20.80%

*Adj. EPS

Source: RHP, Fin2Research







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