Investorstack Research Report

Centum Electronics Limited

What Centum Electronics Limited does

Centum Electronics is an Electronics System Design and Manufacturing (ESDM) company focused on high-reliability, mission-critical applications. Since 1993, it has built one of India's most trusted platforms for designing and manufacturing complex electronic systems that cannot afford to fail. These go into satellites, fighter jets, tanks, warships, and semiconductor fabrication equipment.

The company operates across three continents—India, Europe, and North America—with over 1,900 employees, including more than 600 design engineers. This global footprint allows it to serve customers wherever they are, while maintaining a low-cost Indian engineering base.

Centum offers three integrated service lines: Engineering R&D (design services), Electronic Manufacturing Services (build-to-print), and Build-to-Specification (turnkey development and production). This combination allows customers to engage Centum at any stage—from concept through final production—and is a key reason why most customers use at least two of these offerings.

> *"Centum is not just manufacturing subsystems and systems — we are co-creating national capability."*
>
> CHAIRMAN & MANAGING DIRECTOR, ANNUAL REPORT FY2025

The company's core capability is its ability to handle extreme technical complexity and reliability standards. This took decades to build: certifications like AS9100 (aerospace), ISO 13485 (medical), IRIS (railway), and IPC Class III (high-reliability electronics) create high entry barriers. A new entrant cannot replicate this overnight.

Centum exists as a separate, publicly listed entity because it serves a specific, concentrated market that requires dedicated capital, long development cycles, and deep customer relationships. It is not a diversified conglomerate—it is a focused ESDM platform that derives 56% of its revenue from defence, space, and aerospace.

Business segments

Centum reports three business segments, each with a distinct business model and margin profile.

Engineering R&D Services (ER&D) – 21% of revenue

This segment provides design and engineering services: electronic hardware, embedded software, FPGA design, analog/RF systems, and cybersecurity. The work is largely fixed-price or time-and-materials consulting for global OEMs. End markets are aerospace, defence, automotive, and industrial. Revenue is driven by billable headcount and project milestones. Margins are moderate but capital-light.

The ER&D business is primarily located in France (subsidiary Centum T&S Group), with additional teams in Canada and India. It has faced headwinds due to a slowdown in European automotive and aerospace programs, and the company is in the process of divesting its French and Canadian operations to focus on its core India ESDM platform.

Electronic Manufacturing Services (EMS) – 47% of revenue

EMS is the largest segment by revenue. It covers high-mix, medium-volume manufacturing of printed circuit board assemblies (PCBAs), box builds, and system integration. Customers provide the design; Centum manufactures to

print. End markets include defence, aerospace, industrial & energy, healthcare, transportation, and semiconductor equipment.

This is an annuity business: products have long lifecycles (10+ years), and once qualified, customers rarely switch suppliers due to the cost and risk of re-qualification. The segment grew 21% year-on-year in FY26, driven by a ramp-up with a leading semiconductor capital equipment OEM and new wins in grid automation and biometrics.

EMS margins are typically 9-11% EBITDA, as it is a cost-plus model. The business generates strong returns on capital employed because fixed asset requirements are moderate.

Build-to-Specification (BTS) – 32% of revenue

BTS is the highest-margin segment (20%+ EBITDA). Centum takes a customer's requirement—often just a specification or a concept—and delivers a complete, qualified subsystem or system. This includes design, engineering, prototyping, testing, certification, and production.

End markets are almost entirely defence, space, and aerospace. Key programs include AESA radar systems, space-based electronic warfare payloads, hyperspectral imaging payloads, and tank electronics. Orders are large and lumpy, with execution cycles of 2 to 2.5 years.

BTS is where Centum builds intellectual property. The company owns the design, which creates sticky customer relationships and the potential for follow-on production orders. The segment grew 37% year-on-year in FY26.

Products and business detail

AESA Radar Systems

Centum has won two complete radar system programs. The marquee one is the UHM utility helicopter radar for HAL, valued at over INR 570 crores over its lifecycle. The first phase (development, ~INR 67 crores) spans two years; the production phase runs through FY30-31. The second is a long-range radar for satellite and space debris tracking, worth about INR 30 crores. Both are turnkey systems—Centum owns the full design and delivers the ready radar to the customer.

In addition, Centum has won two critical subsystems (antenna array and exciter-receiver) for the Virupaksha radar upgrade program for the Su-30 MKI. This is a development contract under INR 10 crores, but the eventual production opportunity could be significant.

Space-Based Electronic Warfare Payloads

Centum has delivered multiple payloads for electronic intelligence (ELINT) missions on satellites. These are fully indigenous designs, making Centum one of the few Indian companies with this capability. The space-based surveillance (SBS) program represents an addressable opportunity of around INR 1,000 crores, with orders expected to flow over the next few years.

Hyperspectral Imaging Payloads

Centum developed a high-resolution hyperspectral imaging payload for ISRO. It was launched on a PSLV mission that unfortunately failed. A repeat mission is expected. This is a first-of-its-kind capability for India.

Air Navigation Systems

Under a partnership with GRSE (Garden Reach Shipbuilders & Engineers), Centum is developing air navigation systems that enable aircraft to land on and take off from warships. The first order is ~INR 30 crores; the total

opportunity over five years is around INR 500 crores. This is a military-specific system currently installed on only one Indian warship, with potential for dozens more.

Tank Electronics

Centum has indigenized multiple subsystems for main battle tanks, including sighting systems and fire suppression systems, replacing Russian imports. These are developed under DRDO programs and are in production.

DC-DC Converters

Centum supplies turnkey DC-DC converters to ISRO's VSSC for PSLV avionics. This is a high-reliability application requiring space-grade qualification.

PCB Assemblies and Box Builds

This is the core of the EMS segment. Centum manufactures complex PCBAs and box-build assemblies for semiconductor capital equipment, medical devices, industrial automation, and defence exports. The semiconductor anchor customer alone is expected to reach an annual revenue run rate of $30 million in 2-3 years, from near zero two years ago.

The company completed over 80 new product introductions in FY26, supporting faster customer ramp-ups.

Customers

Centum's customer base is concentrated but high-quality. The key customers are:

- **Hindustan Aeronautics Limited (HAL)** – marquee AESA radar program for the UHM platform. This is a multi-year, INR 570+ crore program. Centum is the L1 bidder and sole developer.
- **DRDO** – development orders for Virupaksha radar subsystems, tank electronics, and other classified programs. These are typically smaller development contracts that lead to larger production orders.
- **ISRO** – satellite payloads (ELINT, hyperspectral imaging), DC-DC converters, and avionics modules. Centum delivered ~400 critical modules for the CMS-3 GSAT-7R program.
- **GRSE** – partnership for air navigation systems for the Indian Navy. This is a new relationship.
- **Bharat Electronics Limited (BEL)** – MoU for joint development in electronic warfare, radar, and military communication systems. Specific programs include QRSAM.
- **Thales** – global supply chain partner for Rafale electronics. Centum is one of only two companies supplying electronics to this platform from India.
- **Alstom** – largest customer of the Canada subsidiary (now discontinued). In India, Centum has won orders for Delhi and Chennai metro systems and Vande Bharat trains through its own team.
- **Semiconductor equipment OEM** – a top global capital equipment supplier. This is the anchor customer driving the EMS ramp-up. Already 65+ part numbers qualified.
- **Global OEM for grid automation** – new business win for power distribution products.

Buying relationship and switching costs

In BTS, customers (HAL, DRDO, ISRO) award contracts through a competitive bidding process, often L1 (lowest bidder). Once awarded, switching is nearly impossible because Centum owns the design, tooling, and qualification

data. The development phase lasts 18-24 months, after which production orders flow for years. This creates high visibility: the standalone order book stood at INR 1,645 crores as of March 2026, up 23% year-on-year.

In EMS, customers qualify Centum as an approved supplier through a rigorous NPI (new product introduction) process. This takes 12-18 months. Once qualified, customers place recurring purchase orders. Switching would require a costly re-qualification, so retention is high. The business is annuity-like.

Concentration risk

A significant portion of revenue comes from a limited number of key customers. The annual report explicitly identifies customer concentration as a risk. The loss of the HAL radar program or the semiconductor anchor customer would materially impact results. However, the company is actively diversifying: new customer wins in biometrics, grid automation, and semiconductor equipment are broadening the base.

Contract structure

BTS contracts are typically fixed-price with milestone-based payments. EMS contracts are cost-plus or fixed-price with annual price negotiations. The company has significant working capital tied up in inventory (204 days of inventory turnover in FY25 standalone), as it buys components against firm orders and customer forecasts.

Competitive landscape

Industry structure

The ESDM industry is broad, ranging from low-cost consumer electronics assembly to high-reliability defence systems. Centum operates at the high end, where barriers are highest and competition is more limited. The industry has three layers:

1. **Pure-play EMS providers** (e.g., Foxconn, Flex, Jabil) – focus on high-volume, low-mix manufacturing. Centum competes in a different space: high-mix, medium-volume, high-reliability.

2. **Defence electronics specialists** (e.g., BEL, Larsen & Toubro, Tata Advanced Systems, Astra Microwave) – these companies compete for defence contracts. Centum differentiates by offering the full ESDM stack (design + manufacturing), not just components.

3. **Engineering services firms** (e.g., Cyient, KPIT, Tata Elxsi) – Centum's ER&D segment competes here, but with a focus on hardware-heavy domains (RF, power, embedded) rather than pure software.

Where Centum wins and loses

Centum wins because it can take a customer from concept to production for a complex, mission-critical system. Very few Indian companies can deliver a complete airborne radar or a satellite payload. The HAL AESA radar order is proof: Centum was declared L1 for a full radar system against other bidders. In the Virupaksha radar program, management stated there are "2 other major players or competitors" for the subsystems Centum won.

Centum loses when contracts go to lower-cost, higher-volume EMS providers for less complex work, or when government-owned entities (like BEL) win prime contracts due to policy preference. In the EMS export business, competition comes from global players like Sanmina, Benchmark, and Kimball, but Centum's India-based cost advantage and quality certifications give it an edge for customers diversifying supply chains away from China.

For the ER&D business in Europe, competition is intense. Management cited "increased competitive intensity impacting margins" and a subdued macro environment as reasons for the restructuring of the French subsidiary.

Honest assessment

Competition is intense in the EMS segment, where margins are thin and customers regularly benchmark pricing. Centum's 9-11% EBITDA margins are standard for the industry. In BTS, competition is less intense but contracts are lumpy and subject to government procurement cycles. L1 bidding can compress margins. The company's ability to win complete system-level contracts (radar, navigation) is a genuine differentiator, but each win is hard-fought.

Industry

Global ESDM market

The global electronics system design and manufacturing market is large and growing. India's share is projected to rise from roughly 3% today to 6-7% by 2027, driven by supply chain diversification, Make in India, and the Production Linked Incentive (PLI) schemes. Domestic electronics manufacturing grew at a CAGR of ~20% from FY21 to FY24, reaching ~USD 115 billion. The government targets USD 300 billion by 2026.

Defence spending

Global defence spending reached an all-time high of USD 2.7 trillion in 2024, with the steepest year-on-year rise since 1988. European NATO members are increasing budgets significantly—Germany targets 3.5% of GDP by 2029. India is the fifth-largest defence spender at USD 79 billion, with over 70% of procurement now routed to Indian entities. This indigenization push is a powerful tailwind for Centum, which designs and manufactures subsystems that were previously imported.

Space sector

India's space program is expanding, with increased budgets for space-based surveillance, satellite constellations, and human spaceflight. The IN-SPACe initiative is opening the sector to private participation. Centum has a 23-year relationship with ISRO and is one of the few companies with proven capability in satellite payloads.

Semiconductor equipment

The India Semiconductor Mission 2.0 provides incentives for the electronics ecosystem, including capital equipment suppliers. Centum's new semiconductor equipment customer is a direct beneficiary. The global push for chip fabrication capacity (including in India) is driving demand for the type of high-reliability manufacturing Centum offers.

Other end markets

- Automotive electronics: global market expected to reach USD 540-650 billion by 2032 (CAGR ~5%). India's auto-electronics market grows at 21.5% CAGR.
- Railways: metro network expansion and Vande Bharat trains create demand for onboard electronics. Centum has won orders for Delhi and Chennai metro and Vande Bharat.
- Healthcare: medical devices sector growing, supported by PLI. India imports 70-75% of devices, creating import substitution opportunities.
- Industrial & Energy: renewable energy capacity expansion drives demand for power electronics and grid automation.

Cyclicality and order lumpiness

The BTS business is inherently lumpy. Orders are large (INR 30-570 crores), with execution cycles of 2-2.5 years. Revenue recognition is milestone-based, so quarterly results can swing significantly. EMS is more stable but still subject to customer demand cycles. The company has guided for 25-30% standalone revenue growth over the medium term, but year-on-year comparisons can be volatile due to program timing.

Regulatory environment

The company benefits from several government policies:

- **Make in India / Atmanirbhar Bharat** – preference for indigenous suppliers in defence and space.
- **PLI for electronics** – incentives for manufacturing.
- **India Semiconductor Mission 2.0** – support for semiconductor ecosystem, including capital equipment.
- **Defence procurement reforms** – increased domestic sourcing from private industry.

However, reliance on government contracts means exposure to budget cycles, policy changes, and slower decision-making. The company's export business (53% of revenue) is subject to trade policies and geopolitical risks. The ongoing restructuring of the French and Canadian subsidiaries is a direct consequence of a weak European macro environment.

Growth triggers

- **HAL AESA radar program for the UHM helicopter platform.** Centum was declared L1 bidder and received the order for development and production of a complete airborne radar system. This program is a multi-year engagement spanning development and subsequent production phases, representing a significant validation of Centum's capability to deliver full turnkey radar systems. (Q3 FY26 concall, Feb 2026; Q4 FY26 concall, May 2026)
- **Ramp-up with a top global semiconductor equipment OEM.** A new anchor customer in the semiconductor capital equipment space entered serial production during FY26. The relationship deepened with multiple part numbers qualified and deliveries accelerating. This customer alone is expected to become a material contributor to EMS revenue over the next two to three years. (Q3 FY26 concall, Feb 2026)
- **GRSE air navigation program for the Indian Navy.** Centum signed an MoU with GRSE and received the first order for a mission-critical navigation system that enables aircraft to land and take off from warships. The total opportunity across all shipyards is estimated to be substantial over the next five years, with follow-on orders expected from other naval shipbuilders. (Q2 FY26 concall, Nov 2025)
- **Space-based surveillance (SBS) program.** The company is positioned for a large addressable opportunity in space-based electronic intelligence payloads and surveillance systems. Orders started flowing in late FY26, and the pipeline includes multiple satellites and ground segments. (Q2 FY26 concall, Nov 2025; Q4 FY26 concall, May 2026)
- **Second complete radar system order for satellite and space debris tracking.** Centum secured another full radar system contract, this time for a long-range space debris tracking application. This complements the airborne radar win and strengthens the company's portfolio in ground-based surveillance radars. (Q4 FY26 concall, May 2026)
- **Overseas restructuring to sharpen focus on the core India ESDM platform.** Canada operations were discontinued and the wind-up process is underway. The French subsidiary entered a court-supervised asset sale process, with divestment expected by July 2026. These actions stop further cash drain from underperforming subsidiaries and allow management to fully concentrate on scaling the profitable standalone business. (Q3 FY26 concall, Feb 2026; Q4 FY26 concall, May 2026)

Key risks

- **Customer concentration:** A significant portion of revenue comes from a limited number of key customers, particularly in defence and space. Losing any major client or seeing a reduction in orders could materially impact results.
- **Supply chain disruptions:** Global shortages of components such as copper clad laminate and memories, along with logistics delays from geopolitical tensions, can delay production and increase costs. The company relies on a global supply base, and lead times have been extending.
- **Long contract cycles and lumpy order flows:** Build-to-specification orders have execution periods of two to two and a half years. Revenue can be volatile quarter-to-quarter, making short-term forecasting difficult.
- **L1 bidding margin pressure:** Many defence contracts are awarded to the lowest bidder. Aggressive pricing to win orders can compress margins, especially if cost overruns occur during execution.
- **Foreign exchange fluctuations:** The company derives a majority of its revenue from overseas markets. While partially hedged, currency volatility can affect reported margins and competitiveness.
- **Regulatory and compliance changes:** Shifts in defence procurement policies, export controls, environmental laws, or certification requirements can increase costs and delay projects.
- **Cybersecurity and data privacy:** As a technology company handling sensitive defence and space data, a cyberattack could lead to loss of intellectual property, reputational damage, and legal liabilities.
- **Geopolitical risks:** Conflicts in Europe and the Middle East can disrupt supply chains and affect subsidiary operations. They also create uncertainty in customer demand and order timing.
- **Subsidiary losses and restructuring costs:** The Canadian and French subsidiaries have been loss-making. While restructuring is underway, additional costs or delays in divestment could weigh on consolidated results.
- **Human capital retention:** The company depends on over 600 design engineers. Talent shortages in high-tech domains could hinder growth and innovation.

Walk the talk

Management set clear growth and margin targets for the standalone business mid-way through FY26, and the actual outcomes fell short of those ambitions.

> *"we are targeting 30% growth for the full financial year at the end of March."*

This guidance was given in the Q2 FY26 concall in November 2025. When the full year results were announced in May 2026, the standalone business had grown but below the 30% target. Management attributed the miss to a product mix shift in the EMS segment that did not materialise as expected.

> *"we should be in our range of between 13% to 15% at a standalone basis for EBITDA."*

The same Q2 FY26 concall projected EBITDA margins in that range for the full year. The actual full year standalone margin came in below that range. Management explained that the EMS product mix was softer than anticipated, delaying the margin improvement to the following year.

On the overseas subsidiaries, management promised decisive action with specific timelines.

> *"we will have a decision for this by the end of the current quarter."*

This referred to the Canada subsidiary, stated in the Q1 FY26 concall in August 2025. The decision did not come within that quarter. Canada operations were eventually discontinued in Q4 FY26, and the wind-up process began. The timeline slipped by about two quarters.

> *"we do expect to have a decision on this by Q4."*

This was about the European subsidiary's strategic options, stated in the Q2 FY26 concall in November 2025. By Q4 FY26, the French subsidiary had entered redressement judiciaire (a legal restructuring process) and a court-supervised asset sale was progressing. A decision was reached, but through a judicial process rather than a voluntary divestment, and management noted they do not expect any meaningful financial realisation from the sale.

These instances show that while the company has delivered strong underlying performance in its core India business, its forecasting accuracy and execution on subsidiary exits have room for improvement.

Scenarios

Bull case

India's defence indigenisation push accelerates, and Centum wins additional full-system radar programs beyond the UHM platform. The semiconductor equipment customer ramps faster than expected, exceeding the current run-rate target. The French subsidiary divestment completes cleanly without further losses, and the Canada wind-up ends. Management's full attention on the standalone business drives operating leverage, and the BTS revenue mix shifts higher, lifting overall margins into the targeted range. New orders from the space-based surveillance program and naval navigation systems flow in steadily, providing multi-year revenue visibility. The company emerges as a recognised Tier-1 system integrator in Indian defence electronics, commanding higher margins on proprietary IP.

Base case

The HAL AESA radar program proceeds through its two-year development phase and transitions to production orders as expected. The semiconductor equipment customer grows to the planned run-rate but not materially beyond. The French subsidiary divestment concludes by mid-FY27 with no further cash outflow, and Canada is fully wound up. Standalone revenue continues to grow at a healthy pace, supported by a mix of BTS and EMS wins, but margins stay in the lower half of the target range due to competitive pricing and mix headwinds. Order book remains robust, but lumpy execution means quarterly results vary. The company maintains its position as a reliable supplier to defence PSUs and global OEMs without a step-change in scale or profitability.

Bear case

Geopolitical tensions cause prolonged supply chain disruptions, delaying deliveries on key defence programs. The HAL radar program faces technical hurdles or funding delays, pushing production revenues out by several years. The French restructuring encounters legal complications or leaves residual liabilities that impact the consolidated balance sheet. Customer concentration proves risky if a major export client reduces orders due to its own budget cuts. Margin pressure from L1 bidding and rising raw material costs compresses standalone profitability below the

target range. Without the hoped-for step-up in BTS revenue, the company's growth rate decelerates, and the market re-rates the stock on slower earnings momentum.