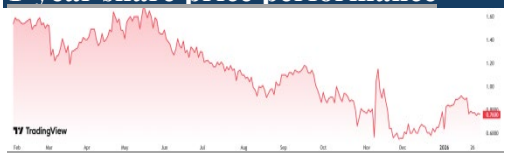
Trading Statistics

Name:	Semilux International
Ticker (NASDAQ):	SELX
Sector:	Aerospace and Defense/UAVs
Share price (30 Jan 26):	USD 0.76
Market capitalization:	USD 28.4m
Avg. 3 month volume:	1.2m
Total shares out:	37.4m
Free Float %:	24%
Rating	Not Rated

1-year share price performance



Semilux International Ltd.
Shifting from autos into UAVs

Gateway between US UAVs and Asian defense markets

Semilux International Ltd. ("Semilux") is transitioning from the automotive end markets and into a defense-aligned UAV (unmanned aerial vehicle) systems integrator and ODM, positioned between advanced U.S. UAV platform providers and expanding defense procurement programs in Taiwan and Asia. One of the company's core strengths lies in its strategic partnerships with U.S.-based defense and UAV platform providers, enabling access to proven technologies while localizing manufacturing, integration, and deployment for Taiwan and allied markets.

Defense spending tailwinds

According to market research firm MarketsandMarkets, the global military drone market is estimated to grow to USD22.8bn by 2030 (7.6% CAGR 2025-2030). Taiwan's Ministry of National Defense recently guided for a $40bn special defense budget that includes 200k UAV units which potentially benefits Semilux. The company also has a strategic role as a local and trusted supply-chain partner for U.S. and allied UAV platforms with strengths in local manufacturing, systems integration, and mission-specific customization for Asian defense and government customers.

Pathway to profitability

As of 1H25, on a net profit basis to common shareholders, Semilux saw a loss of NTD54.3m ($1.7m) vs. a loss of NTD35.7m ($1.1m) during 1H24 due to strategic investments prior to scaling the mass delivery of UAV platforms. With the Taiwan government's high defense budget, management indicated it is positioned to benefit from accelerated UAV procurement which may result in 2026 profitability as deliveries and follow-on programs begin to scale.

Potential 202-277% upside based on peer analysis

Semilux is best valued on a price-to-sales framework and is trading at a discount to U.S. UAV peers (with a market capitalization ~USD5bn <) due to its early product commercialization stage. The average peer P/S multiple is 37.5x whereas Semilux is trading at an 80% discount (7.5x). To factor Semilux's lower share liquidity with a 40-25% discount to the peer average multiple, results in a Semilux potential multiple of 22.5 to 28.1x or share price of USD2.3 to 2.9 representing potential 202 to 277% upside. Key risks include weaker than expected defense spending and excess competition leading to lower margins.

Company name	Ticker	Share price	Market Cap USDm	Current P/S	Current P/B	Current EV/EBITDA
Semilux	SELX	0.76	28	7.5x	6.1x	NM
Red Cat Holdings	RCAT	13.5	1,612	63.6x	7.0x	NM
Ondas Holdings	ONDS	8.07	4,395	68.0x	9.8x	NM
AIRO Group Holdings	AIRO	10.29	322	4.1x	0.5x	29.0x
Draganfly	DPRO	7.29	186	14.1x	4.0x	NM
Average ex-Semilux				**37.5x**	**5.3x**	**29.0x**
**as of 30 Jan 2026*						

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Company history and growth drivers: technology edge

Company history and business reorganization from autos to UAVs

Semilux International Ltd was founded in July 2023 and operates through two wholly-owned subsidiaries, Taiwan Color Optics, Inc. (TCO), a company incorporated in Taiwan and Semilux Ltd., a Cayman Islands exempted company. Taiwan Color Optics was founded in 2009 where in 2015, it was approved to set up a factory in the Central Science Park. Currently, TCO has five factories in addition to a production and R&D base, covering an area of 4,105 square meters.

In February 2024, Semilux International was listed on NASDAQ through a special purpose acquisition company called Chenghe Acquisition Company. TCO specializes in the design and production of optical components such as high-precision optics and fluorescent modules. Historically, the company focused on the automotive segment by supplying optical components such as LiDAR (light detection and ranging) sensors in autonomous vehicles. Semilux collaborates with Dr. Wood-Hi Cheng's electronic engineering team at National Chung Hsing University in Taiwan on the development of optical components which are funded by Taiwan government grants.

Since mid-2024, Semilux has shifted decisively toward defense unmanned aerial vehicles (UAV) platforms, leveraging its optics and systems integration strengths. Semilux is both an UAV systems integrator and ODM, positioned between advanced U.S. UAV platform providers and expanding defense procurement programs in Taiwan and Asia.

Previously, the company was supplying optical components into the automobile related end market for autonomous driving and adaptive driving beams. The end market shift is due to greater growth potential with UAV platforms as the automotive end market was deemed to be saturated with too many component suppliers. Much of the optical component technology can be easily transferred from the automotive segment into the UAVs end market.

Semilux operates on a partnership-driven model by collaborating with U.S. based UAV manufacturers in order to localize production and to access Asian defense markets. This partnership offers a two-sided strategic value to both parties as Semilux gains mature UAV platform access and production scalability, whereas the U.S. partners gain Asian market access coupled with Taiwan's competitive manufacturing base. Hence, the company serves in a strategic role as a local supply-chain partner for U.S. and allied UAV platforms leveraging its strengths in local manufacturing, systems integration, and mission-specific customization for defense and government clients. This end market specialization is a key differentiator versus other UAV OEM/ODM competitive peers.

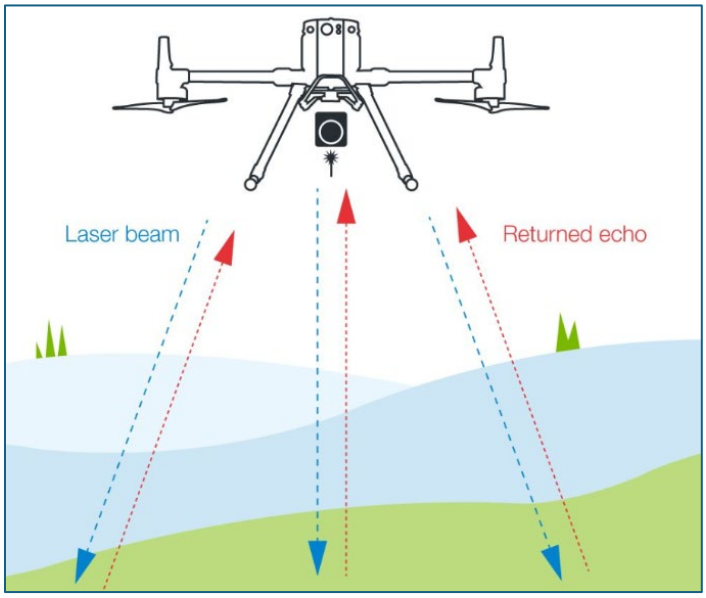
Leading development in LiDAR technology

Semilux is well positioned to support the development of commercial and military UAVs through the development of advanced optical and AI-enabled sensing integration, localized manufacturing and training capacity, and Blue UAS–aligned system architecture. The Blue-UAS system is a framework developed by the US Department of Defense (DOD) where only compliant and government approved component suppliers can work in DOD UAV contracts. Below, we highlight some of the key technologies that Semilux utilizes in UAV component production.

AI LiDAR technology

LiDAR (light detection and ranging) technology uses laser beams to measure distances between objects or surfaces. This is done by calculating the time it takes for light pulses to return after hitting a specified target which in turn produces a 3D mapping of environments by capturing millions of points per second. This technology has enabled the development of various sectors such as autonomous driving vehicles, geospatial mapping, and robotics.

When AI is incorporated into LiDAR technology, the interpretation of the data is more efficient as traditional LiDAR analysis methods are often manual, inefficient, and unable to scale with the increasing volume of data. AI algorithms are better at recognizing patterns in real time which allow for the immediate autonomous decision-making in drone navigation possible. For Semilux, this allows for its drones to assess the surrounding geographical environment in real-time and fly autonomously by avoiding physical obstacles within the flight path. The company designs and manufactures precision optics, LiDAR modules, and optoelectronic integrated systems.



Source: SPH Engineering

Optics-AI fusion

Optics AI Fusion is the convergence of AI with optical technologies (photonics, imaging, and light-based sensing) to create smarter, faster, and more precise systems. In this case, AI is used to optimize, design, and manage optical systems, while photonics is used to accelerate AI computing. In the field of drone imaging, this involves combining multiple images (e.g., infrared and visible) in real-time to enhance contrast, improve resolution, and capture details often missed by traditional, single-source methods.

The photonics component aspect replaces electrical signals with light which solves the bottlenecks in bandwidth, latency, and power consumption. Leveraging photonics enables a faster and more efficient data transfer between and within chips, breaking the "memory wall" that limits current AI hardware. The memory wall refers to when the processor speeds outpace memory bandwidth and capacity forcing the GPU (graphics processing unit) to wait for data which slows the training of large language models.

Not only is data transfer speed improved over traditional copper interconnects, but also heat and energy efficiencies are improved due to photonic interconnects using less power compared to metal interconnects. In addition, photonics enables parallel computing which is faster than electronic methods and allows for the creation of smaller sensing systems which are ideal for enabling real-time, 3D perception in drones.

Solid-state LiDAR technology

Solid-state LiDAR creates 3D maps of surroundings without mechanical moving parts, using electronic beam steering (Optical Phased Arrays or Flash LiDAR) instead of spinning mirrors. It works by emitting laser pulses and measuring reflection times, but achieves scanning electronically, offering greater durability and integration potential for mass production. Optical Phased Arrays steer light beams and flash LiDAR illuminates the object all at once with a flash of laser light. These all result in smaller and more cost-effective sensors (due to lower material costs and mass production capabilities) which are ideal in drones.

These sensors are also more reliable as fewer moving parts are involved in its production resulting in longer life span and can capture data for 3D mapping quickly. Semilux is developing vibration-resistant and dust-proof structure for its solid-state LiDAR technology for real-time 3D point-cloud visualization.

In May 2025, Semilux displayed three flagship products at the XPONENTIAL trade show (global trade show for unmanned systems and robotics): Flash LiDAR (solid-state light detection and ranging), infrared camera and infrared lens. The Flash LiDAR utilizes a 905nm wavelength and one-shot solid-state design with no mechanical scanning parts. It offers ±5cm accuracy, 120°(H) × 50°(V) wide field of view, 10Hz scan rate, and detection range up to 50 meters. The compact design is ideal for UAV terrain sensing, AGV/AMR navigation, smart city flow monitoring, and 3D mapping in industrial settings.

AGV (automated guided vehicle) follow predefined routes, stopping for obstructions, whereas AMRs (autonomous mobile robot) intelligently reroute on the fly, offering greater adaptability and efficiency in dynamic settings.

TCO's AI sensor fusion and multi-spectrum imaging systems include: dual-band EO/IR (electro-optical/infrared) sensing modules, high-sensitivity thermal imaging systems, C-UAS (counter-unmanned aircraft systems) detection and tracking systems, and ISR (intelligence, surveillance, reconnaissance) platforms for unmanned aerial vehicle, unmanned ground vehicle, and maritime systems.

UAV manufacturing – strong pipeline

Defense drones

Semilux is currently developing defense and civil oriented UAVs after transitioning away from its legacy automotive focused optical component business in mid 2024. Below, we highlight some of the main defense oriented UAV models of the company.

Penguin C VTOL UAV: For defense and currently in use within the areas of artillery, fire control, search and rescue, or infrastructure assessments and has the ability to take-off and land anywhere as defined by vertical take-off and landing (VTOL).

Source: company reports

Wingspan	4.12m / 13.5ft
Max Takoff Weight	41kg / 90lb
Ceiling	4000m / 13,000ft
Endurance	12+ hrs
Communications Range	up to 180km / 112mi
Cruise Speed	30+ kts
Max Speed	65+ kts
Comms Type	Silvus Dual S & C band standard

Source: company reports

V8 Babka VTOL fixed wing: The Babka can be deployed for non-stop flight missions of up to 180 minutes and can be launched from confined spaces by a single operator without a runway. The Babka provides BVLOS (beyond visual line of sight) strategic situational awareness either in day or night and can broadcast securely to multiple locations with a live feed from anywhere

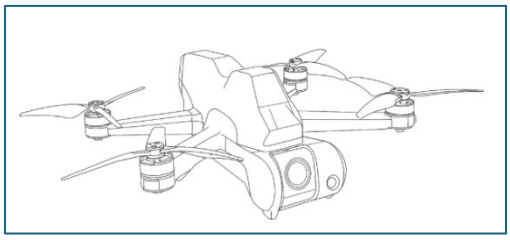
in the world. The V8 Babka is designed to be used in GNSS (Global Navigation Satellite Systems) denied environments.

Source: company reports

Wingspan	2.3m
Weight	8kg
Max Takoff Weight	11kg
Cruise & Max. Speed	~120kph
Endurance	3 hrs
Communications Range	15~300km
Max. Windspeed	12+knots
Working Temp.	-15℃ ~ +50℃
Day Camera	EO 2pcs 12.3MP
Thermal Camera	384 x 288, 25Hz

Source: company reports

Bug: This nano quadcopter is compact, lightweight and visually discrete which is ideal for reconnaissance, surveillance and targeting and has the ability to fit and fly in small spaces. Bug is designed for extended and high speed flight endurance. It features multiple intelligent flight modes such as autonomous mission execution and automatic return-to-launch capability. Equipped with a high-resolution zoom camera and a thermal imaging system, it provides clear surveillance with secure transmission to multiple locations. Bug incorporates encrypted communications and network modules to counter signal interference and supports advanced capabilities such as coordinated swarm operations.



Source: company reports

Size	L 205mm x W 250mm x H 62mm
Weight	245~300g
Cruise & Max. Speed	80kph(22m/s)
Endurance	30min
Communications Range	3~7km
Max. Windspeed	40+knots
Working Temp.	-15℃ ~ +50℃
Day Camera	EO 5MP
Thermal Camera	256 x 192 (720p) & night time

Source: company reports

Horus: Designed to operate without reliance on Global Navigation Satellite Systems (GNSS), the Horus drone features an intelligent return-to-launch mode and offers both autonomous and manual flight options. Horus utilizes secure wireless links for on-site protection and can employ cellular networks or mobile ad-hoc network (MANET) radio modules. The Horus drone features interchangeable arms and can perform continuous flight missions of up to 29 minutes, can reach speeds of up to 80 km/h and offers a transmission range of 7 km (5.8 GHz).

Source: company reports

Size	L531 x W497 x H80mm
Weight	1.2kg
Max Takoff Weight	1.5kg
Cruise & Max. Speed	80kph(22m/s)
Endurance	30min
Communications Range	3~7km
Max. Windspeed	35+knots
Working Temp.	-15℃ ~ +50℃
Day Camera	EO 12MP x2
Thermal Camera	384 x 288 (1920p) & night time

Source: company reports

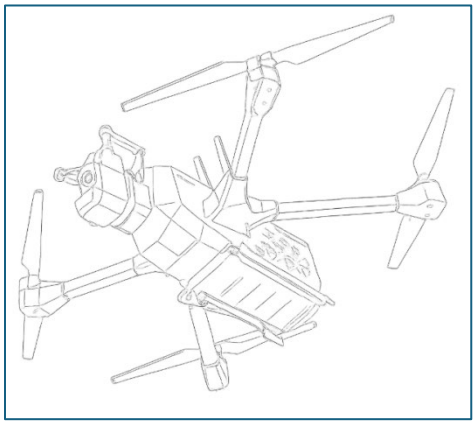
Huntsman: The Huntsman system integrates an AI vision module capable of precise target recognition and continuous tracking and also delivers enhanced situational awareness in diverse environments. All communications are secured through advanced encryption to ensure mission confidentiality. This UAV supports a wide range of payloads and configurations with a flexible multi-mount interface. This drone is for tactical deployment through its compact form factor and rapid assembly features.

Source: company reports

Size	L1265 x W1577x H300mm
Weight	9.9kg
Max Takoff Weight	18kg
Cruise & Max. Speed	80kph(22m/s)
Endurance	90min
Communications Range	16~55km
Max. Windspeed	35+knots
Working Temp.	-15℃ ~ +50℃
Day Camera	EO 12MP x2
Thermal Camera	384 x 288 (1920p) & night time

Source: company reports

BMR2: The BMR 2 combines high-resolution visual and thermal sensors with partner-grade optics to deliver clarity for inspections, reconnaissance, and search-and-rescue. BMR2 is capable of long-endurance missions with flexible payload capacity and employs advanced onboard GPU processing, optical positioning, and robust collision-avoidance to enable reliable autonomous navigation in complex, GPS-denied environments.



Source: company reports

Weight	3.2kg
Payload	1kg
Cruise & Max. Speed	72kph(22m/s)
Endurance	50min
Navigation	Jetson Orin NX GPU operation in complex and GPS-denied environments, both day and night.

Source: company reports

Sentinel: Sentinel supports GPS and ground-referenced imaging modules to enable autonomous missions. With an encrypted, frequency-hopping C2 (command and control) data link, Sentinel maintains reliable communications even in high electromagnetic-interference environments. In coordinated operations with the BMR2, Sentinel is designed for mesh networking; its compact size and autonomy allow it to act as a rapidly deployable airborne relay, extending the BMR2 C2 data link.

Source: company reports

Weight	2.1kg
Payload	2kg
Cruise & Max. Speed	30kph(22m/s)
Endurance	45min
Navigation	Jetson Orin NX GPU operation in complex and GPS-denied environments, both day and night.

Source: company reports

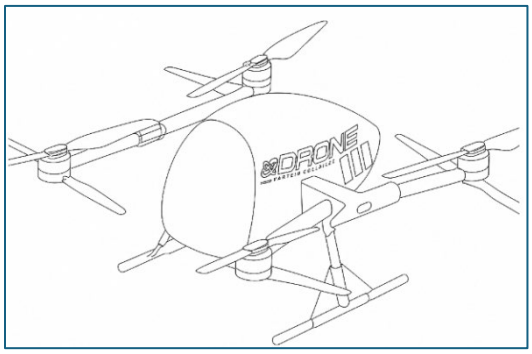
VTRX: The VTRX is engineered for wide-area surveillance and provides strong endurance and operational range, making it ideal for border patrol, environmental monitoring, and perimeter security. The system supports a wide range of EO/IR (electro-optical/infrared) camera payloads which enables precise long-distance observation and target tracking. VTRX also integrates multiple encrypted controllers and radio configurations, offering mission-level customization across multiple domains.

Source: company reports

Weight	5.5kg
Wing Length	2000mm
Range	50km
Payload	2.7kg
Cruise & Max. Speed	22 m/s
Endurance	60-90min

Source: company reports

Canary: Canary is designed to ensure swift and secure deliveries across various environments. Its non-contact delivery system allows packages to be deployed without landing which is ideal for hospitals, disaster zones, or residential backyards. Canary excels in last-mile logistics, making it an optimal solution for transporting medical, pharmaceuticals, emergency supplies, mail, and small parcels.



Source: company reports

Payload	4.5kg
Max. Range	20km
Cruise & Max. Speed	60kph

Source: company reports

Target drones: Dart, as highlighted below, is an example of a target drone which is a small OWE (One-Way Effector) system—designed as a disposable, single-use platform that emphasizes agility and reduced detectability. Dart is highly maneuverable and difficult to detect and offers extended endurance and can be configured to represent a range of threat models.

Source: company reports

Wingspan	2.5m
Length	1.55m
Weight	17kg
Flight Time	2hrs
Max. Altitude	4000m
Max. Range	15km
Working temp.	-5℃~45℃

Source: company reports

Civilian drones and other products

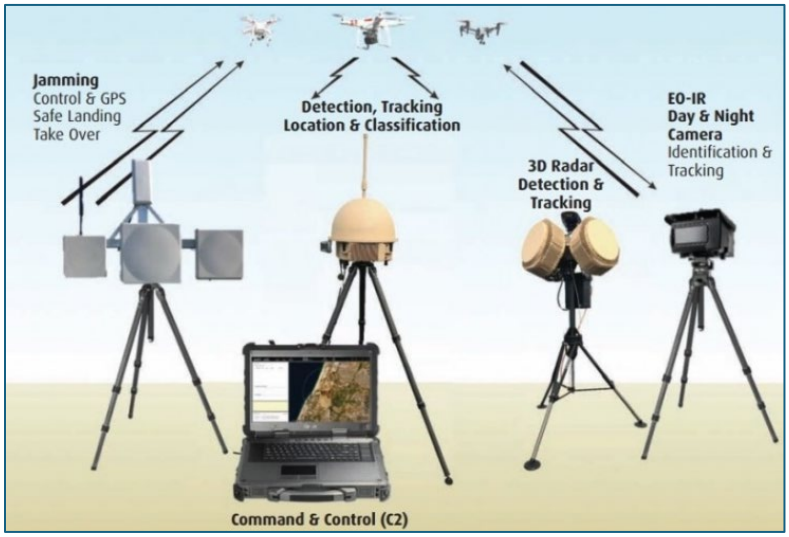
In terms of civilian drones, TCO manufactures UAVs that are used in insulator cleaning for power transmission towers, aerial firefighting, agricultural spraying, offshore wind turbine maintenance, and solar panel cleaning and maintenance. In the future, drones will be developed to expand into logistics and express delivery services, mountain rescue support, supply transport, and crop transportation. The power systems of these UAVs can range from battery, to gas-electric hybrid with maximum take-off weights ranging from 21 to 160KG depending on functionality.

For example, the EJ8-70 drone used in agriculture is designed with smart technology and equipped with a 72-volume spraying system and an optional 80-volume solid spraying module. This enables the spraying system to be flexible and to switch between operating modes to suit different agricultural needs. This drone is targeting the Japanese agricultural market.

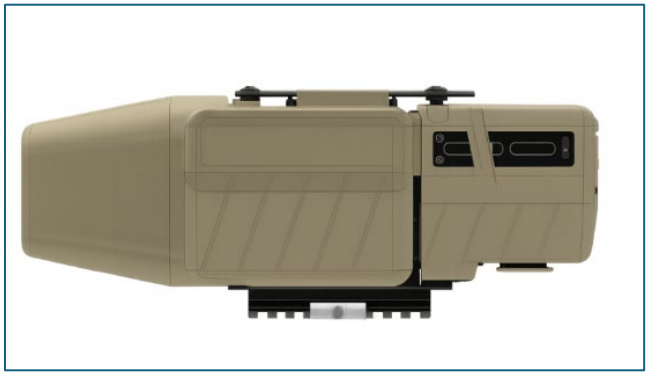
Source: company reports

Source: company reports

TCO is also developing flight control systems, redrone systems and counterpoint devices which detect and counter hostile drones. In addition, the company will develop multispectral camouflage gear. Below, we highlight a graphical representation of a redroning system in addition to a counterpoint device which can be used to jam incoming hostile UAVs.



Source: company reports



Source: company reports

Jamming Frequency	400 MHz to 6.2 GHz
Coverage Angles	(V)30° / (H)30° High Bands (V)60° / (H)60° Mid Bands (V)90° / (H)90° Low Bands
Working Temp.	-30°C to 60°C / -22°F to 140°F
Size	326mm (L) x 75mm (W) x 94mm (H)
Weight	1370g
Power Life	3~8hrs

Source: company reports

Contract wins from the Coast Guard of Taiwan

In late 2025, TCO was awarded a contract with a value of approximately $7 million from the Coastal and Maritime Surveillance UAV Pilot Program by the Taiwan Coast Guard Administration, under the Ocean Affairs Council of Taiwan. This program is in support of Taiwan's deployment of long-endurance, long-range unmanned aerial systems for maritime surveillance and law-enforcement missions.

This pilot program attracted four qualified bidders and TCO had the strongest bid and was selected based on UAV systems integration capability, operational readiness, and lifecycle support planning. In addition, TCO's strength in advanced optical sensing and localized production and sustainment lead to the winning bid.

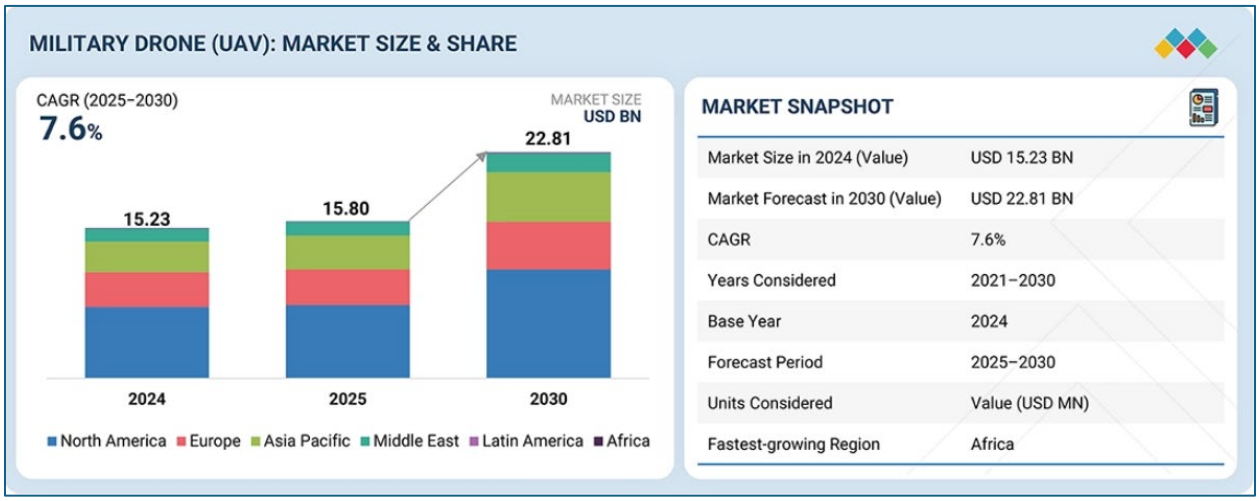
The core system of the pilot program is based on the company's cooperation with US based UAV manufacturer Edge Autonomy (now Redwire) where TCO will be responsible for overall systems integration, localized manufacturing activities, and technical support in Taiwan. Edge Autonomy has licensed the production of its Penguin C VTOL UAV to TCO for Taiwan production. Edge Autonomy's key clients include the US Department of Defense (Navy, Army, Marine Corp) and the Ukraine Armed Forces. On top of this USD 7 million contract with Redwire, who purchased Edge Autonomy in June 2025, Semilux management guided that potential follow-up contract opportunities could range over $20 million.

Semilux's Taiwan Coast Guard contract win is a validation of the company's strength in defense UAVs as it shows the ability to deliver U.S.-origin UAV platforms with localized manufacturing and systems integration in Taiwan, in line with local supply chain and compliance requirements. This niche market focus is a key competitive differentiator which can drive volumes and earnings despite the company not dominating the broader UAV segment which has many local and international competitors.

Military drone market overview: Strong market growth

7.6% CAGR from 2024 to 2030

According to market research firm MarketsandMarkets, the global military drone market was valued at USD15.8bn in 2024 and estimated to grow to USD22.8bn by 2030, representing a CAGR of 7.6% from 2025 to 2030 which coincides with the growth in global military spending. According to a United Nations citation, the global defense spending reached $2.7 trillion in 2024 and could grow to $4.7-6.6 trillion by 2035.



Source: MarketsandMarkets

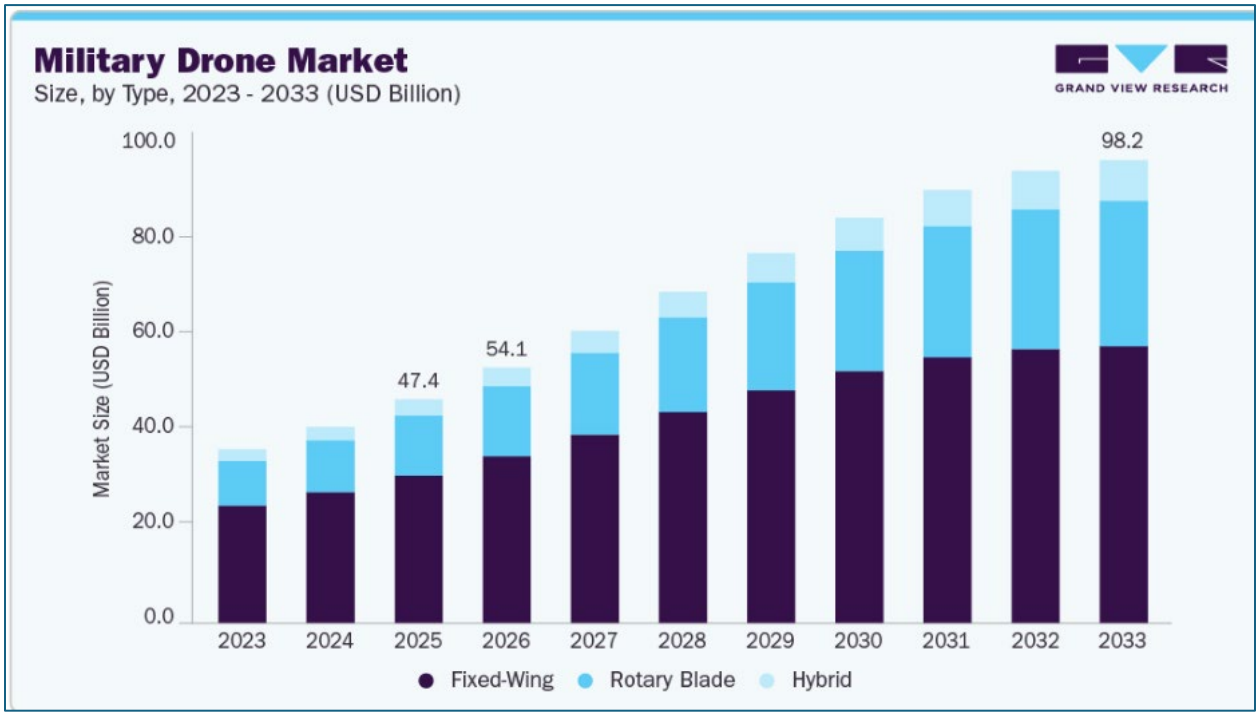
UAV growth is driven by factors such as rising defense budgets in the United States and NATO, the on-going threat of geopolitical tension, AI technology advancement, strong demand for ISR (intelligence, surveillance and reconnaissance), growing demand for precision strike and electronic warfare, adoption of swarm technologies, along with the proliferation of cost-effective tactical UAVs in both major superpower and emerging economies. UAVs are more cost effective than traditional manned aircraft which enables governments to increase its UAV fleet size more rapidly and without human cost compared to manned vehicles.

Within technology enhancements specifically, UAV demand will be fuelled by technological innovations that enhance operational capabilities, such as improved sensor systems, high-resolution cameras, advanced avionics, and seamless integration with real-time data networks, including 5G. Increased adoption in AI algorithms, edge computing, and machine learning for real-time object recognition and path planning are all expected to drive the growth in the fully autonomous UAV segment according to market research firm, Grand View Research.

As cited by Grand View Research, the growing focus on advanced C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance) capabilities is a main driver which is transforming present day military operations especially relating to UAVs. This allows for seamless manned-unmanned teaming, greater situational awareness, and mission adaptability. A leading example of this is the U.S. Department of Defense's Collaborative Combat Aircraft (CCA) Program launched in 2024 which focuses on developing semi-autonomous, jet-powered drones to serve as wingmen alongside manned fighters.

Among UAV sub-segments, ISR drones dominated the market in 2024 due to increased demand for surveillance gathering. Fixed wing drones have the highest product market share compared to rotary and hybrid drones due to the longer flying distance and higher altitude capabilities which offer greater strike capabilities, wider coverage and more cost affordability according to market research firm MarketandMarket.

However, moving forward, the hybrid segment is expected to see the strongest growth, driven by the unique versatility in combining fixed-wing range with rotary-wing hover precision for vertical takeoffs and pinpoint landings. This allows for multi-mission adaptability for tactical strikes, logistics resupply in uneven terrain, and urban counter-insurgency operations. This growth will be further supported by breakthroughs in lightweight composite materials, high-density lithium-sulfur batteries that extend flight times by 30-50%, and AI-driven flight controls that optimize energy use in dynamic battlefields.



Source: Grand View

According to Grand View Research, by geography, Asia Pacific market is expected to see the strongest CAGR of 10%+ from 2026 to 2033, driven by rising geopolitical tensions within the region, increased defense modernization programs, and increasing demand for advanced surveillance and reconnaissance capabilities. For example, the Japan military drone market is rapidly expanding, due to its strategic emphasis on enhancing national security and defense capabilities. Specifically, UAVs with enhanced payload capacity, endurance, and autonomous operation will be some of the main factors driving growth.

UAV growth in Taiwan: Backed by defense spending

Accelerated drone purchases by Ministry of National Defense

Taiwan's Ministry of National Defense in 2025 indicated that it will purchase 48,750 military drones over the next two years (11,270 in 2026 and 37,480 in 2027). The drones are categorized into five types (Type A–E), such as multi-rotor vertical take-off and landing (VTOL) and fixed-wing models. Flight time requirements range from 7 minutes to 2.5 hours. All drones are to be domestically manufactured and assembled in Taiwan without components from countries that are considered to be adversaries. Another 50,000 drones are expected for non-military commercial use. Taiwan's Coast Guard will also increase UAV expenditure through medium range UAVs.

Drone Categories and Specifications Requirements

- **Type A (Multi-Rotor VTOL)**
  Procurement: 7,500 units in 2026, 26,500 in 2027
  Specs: Payload capacity over 2.5 kg; control and transmission range >6 km; flight time over 30 minutes when unloaded
- **Type B (Multi-Rotor VTOL)**
  Procurement: 1,100 units in 2026, 3,200 in 2027
  Specs: Range >25 km; flight endurance of 60+ minutes with optical and 10 kg payload
- **Type C (Fixed-Wing, Catapult-Launched)**
  Procurement: 970 units in 2026, 2,980 in 2027
  Specs: Modular design; data transmission range >90 km; 2+ hour flight time with 10 kg payload and optical systems; range >180 km
- **Type D (Fixed-Wing, Catapult-Launched)**
  Procurement: 1,350 units in 2026, 4,450 in 2027
  Specs: Range >30 km; 30-minute flight time with 2.5 kg payload
- **Type E (VTOL Fixed-Wing)**
  Procurement: 350 units each year
  Specs: Operates in Beaufort scale 5 wind; range >100 km; flight time of 2.5 hours with optical payload; average speed >80 km/h

Source: US International Trade Administration

Taiwan's Executive Yuan in October 2025, approved plans to invest NT$44.2 billion (US$1.44 billion) into the domestic production of UAVs over the next six years which is expected to bring Taiwan's UAV output value to more than NT$40 billion by 2030. Monthly drone production is expected to hit 15,000 units with an industrial output value of $935 million by 2028, 10x over current levels. Taiwan's Ministry of National Defense in January 2026 indicated a defense budget of $40bn where 200,000 UAV unites are expected to be purchased.

Taiwan's drone production is also expected to be exported where Taiwan has an advantage in domestically developed and manufactured AI and chip technology. Currently, Poland is one of Taiwan's largest trading partners for UAVs (54% of drone exports in 1H25) with further exports expected to go to Germany and the United States through increased military collaboration. During 1H25, Taiwan's drone export value reached $12 million (+749% yoy) according to the Taiwan External Trade Development Council (TAITRA).

Key management: Strong operating history

Yung-Peng Chang: Chairman and Co-CEO. Dr. Chang is the co-founder of TCO and has served as the President of TCO since 2009. He leads the efforts in developing LiDAR solution, intelligent headlight, optical design, and 3D-sensing R&D projects. From 2001 to 2008, Dr. Chang was Section Manager for the optical research department of Everest Display Inc., which specializes in optical hologram origination, hologram embossing and the material deposition process. Dr. Chang holds a Ph.D. in Electrical Engineering from National Chung Hsing University of Taiwan.

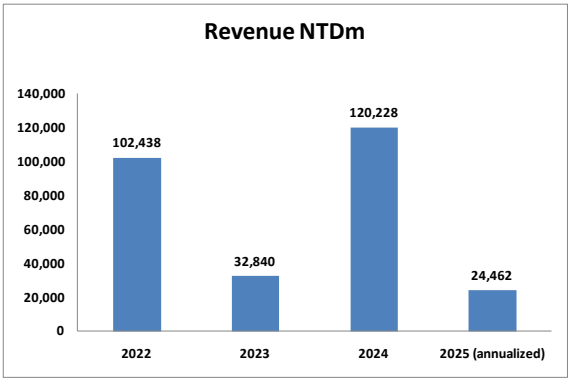
Alan Chih-Feng Wang*:* Co-CEO of the Company. Mr. Wang is a co-founder and director of TCO where he specializes in the development of optical thin-film and LiDAR infrared coating technology. Prior to TCO, Mr. Wang headed the R&D department of Kinko Optical from 2001 to 2008, where he was in charge of the development of DWDM (dense wavelength division multiplexing) for optical communications and UVIR (ultraviolet-infrared) optical filter for projectors. From 2008 to 2009, Mr. Wang served as a technical consultant to Calin Technology, a provider of optical lenses, on optical thin-film coating technology. Mr. Wang holds a master's degree in Electrical Engineering and Executive MBA from Feng Chai University of Taiwan.

Chun-Nien Liu*:* Chief Technology Officer. Dr. Liu has more than 10 years experience in optoelectronic components, chips and system integration technology and design. Dr. Liu's primary research areas encompass fiber lasers and amplifiers, as well as design and integration of photoelectric systems, including silicon photonics, optical phased arrays, biomedical microscopes, LiDAR, and ADB smart headlights. Dr. Liu has received multiple awards, including the Postdoctoral Researcher Academic Publication Award in 2019 and the Entrepreneurial Potential Award of the FITI Program in 2020 among others. Dr. Liu holds a Ph.D. in Optoelectronics from National Sun Yat-sen University of Taiwan.

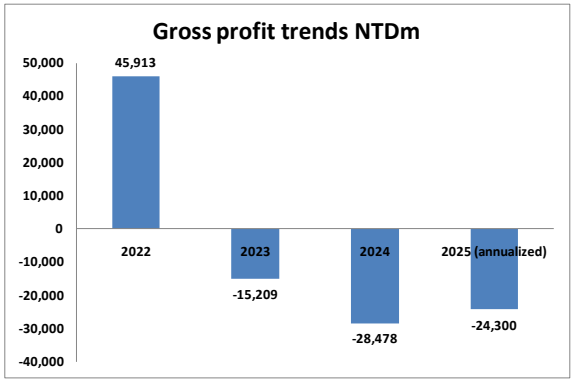
Tina Hsiu-Chen Hsu*:* Chief Financial Officer, has served as TCO's Accounting Manager since joining TCO in 2009. Ms. Hsu has more than 20 years of experience in accounting and finance, having served as a manager in the Accounting and Financial Department in Cyntec Electronics, a leading provider of magnetic components, passive components, power modules, RF and optical modules and a subsidiary of Delta Electronics Group from 1998 to 2009. Ms. Hsu holds a B.S. degree in Accountancy from National Kaohsiung University of Applied Science in Taiwan.

Financial analysis: Higher R&D spend expected

Financial statement analysis: income statement



Source: Company reports



Source: Company reports

NTD '000	CY 22	CY 23	CY 24	Jun-24	Jun-25
Revenues	102,438	32,840	120,228	16,226	12,231
COGS	56,525	48,049	148,706	28,428	24,381
Gross profit	**45,913**	**-15,209**	**-28,478**	**-12,202**	**-12,150**
Gross profit margin	*51.6%*	*-17.1%*	*-32.0%*	*-13.6%*	*-13.4%*
Selling expenses	12,534	11,363	17,161	6,337	5,831
General and administrative	25,903	24,360	80,845	19,251	12,843
Research and development	26,845	24,195	35,033	17,586	18,420
Impairment gain and reversal of impairment loss	0	0	15,300	0	0
Total operating expenses	**65,282**	**59,918**	**148,339**	**43,174**	**37,094**
Total operating income	**-19,369**	**-75,127**	**-176,817**	**-55,376**	**-49,244**
Operating profit margin	*-21.8%*	*-84.4%*	*-198.8%*	*-61.6%*	*-54.2%*
Interest income	3,462	14,680	8,952	6,233	1,696
Other income	2,844	385	1,711	468	526
Other gains and losses	37,399	992	16,747	14,330	-7,868
Finance costs	-2,884	-2,940	-3,310	-1,480	474
Total non-operating income	**40,821**	**13,117**	**24,100**	**19,551**	**-5,172**
Profit before tax	**21,452**	**-62,010**	**-152,717**	**-35,825**	**-54,416**
Income tax (benefits)	6,429	1,019	-771	114	163
Net income	**15,023**	**-63,029**	**-151,946**	**-35,711**	**-54,253**
Net profit margin	*16.9%*	*-70.9%*	*-170.8%*	*-39.7%*	*-59.7%*
Less: net income/(loss) attributable to non-controlling interests	194.0	-13,003	-31,332		
Net income to ordinary shareholders	**14,829**	**-50,026**	**-120,614**	**-35,711**	**-54,253**
Foreign currency adjustment			-884		
Total comprehensive income	**15,023**	**-63,029**	**-152,830**	**-35,711**	**-54,253**
Total comprehensive income to non-controlling interests	194	-13,003	-31,332		
Total comprehensive income to ordinary shareholders	**14,829**	**-50,026**	**-121,498**	**-35,711**	**-54,253**
Basic EPS	0.49	-1.66	-3.21	-1.27	-1.93
Diluted EPS	0.49	-1.66	-3.21	-1.27	-1.93
Growth		CY 23	CY 24	Jun-24	Jun-25
Revenue		*-68%*	*266%*	*-87%*	*-25%*

Source: company reports

In mid-2024, Semilux changed its business focus from automobile related LiDAR and ADB (adaptive driving beam) and into the manufacturing and related optical components for UAVs. Hence, we deem the financial statements through 2024 as irrelevant in terms of forecasting

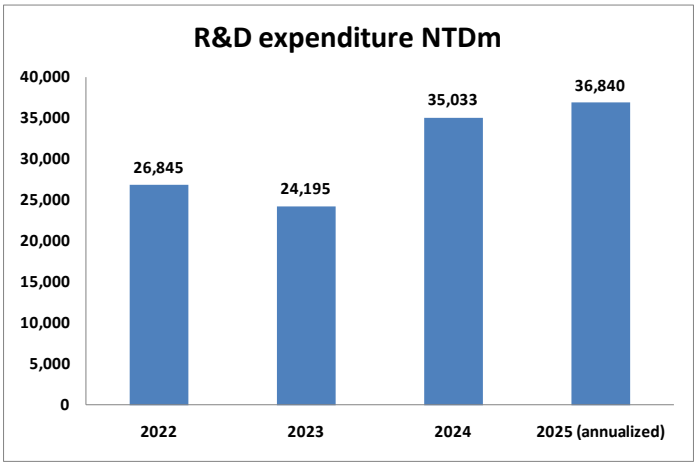
future prospects given the business shift into an end segment that has stronger prospects for revenue and profit growth.

Some noteworthy financial line-items from historical reporting is that from CY23 to CY24, research and development expenses grew from NTD24.2m to NT35m (+45% yoy) due to the development of new IC designs and optical sensing modules in addition to the expansion of R&D teams in order to support new product pipelines.

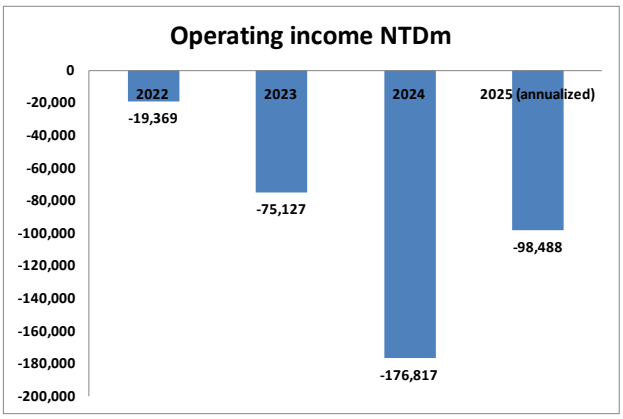
A more accurate reading of R&D expenditure going forward is that on a half year basis ending June 2025, R&D expenditures were NTD18.4m and if we annualize this figure would reach NTD37m for full year 2025 which is 46% higher than the average CY23 and CY24 R&D expense of NTD25.3m. Given the foray into the new UAV segment, we expect that the R&D expense could remain higher than historical norms in the near term. On a more positive note, on an interim basis, gross margin was relatively stable at -13.4% in 1H25 vs. -13.6% in 1H24 as production costs did not shift dramatically even given the new end market focus into UAVs.

The higher administrative expenses in 2024 (NTD80.9m vs. NTD24.4m in 2023) we deem as a one-off. The increase was mainly because of higher professional service fees, personnel costs, and recognition of additional provisions and write-offs related to asset impairment and restructuring activities during 2024.

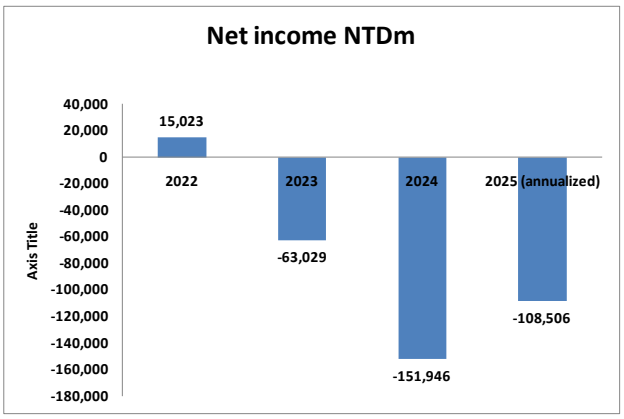
As of the 6-month interim report in 2025, Semilux saw an operating loss of NTD49.2m (vs. NTD55.4m loss in 1H24). On a net profit basis to common shareholders, Semilux saw a loss of NTD54.3m vs. a loss of NTD35.7m during 1H24 due to strategic investments prior to scaling defense UAV deliveries. However, management recently indicated it sees greater revenue potential, positive gross margin and a possible return to profitability in 2026 as the Taiwan government is moving forward on a special defense budget of approximately US$40 billion. Hence, TCO is positioned to benefit from accelerated UAV procurement as UAV deliveries and follow-on programs begin to scale.



Source: company reports



Source: Company reports

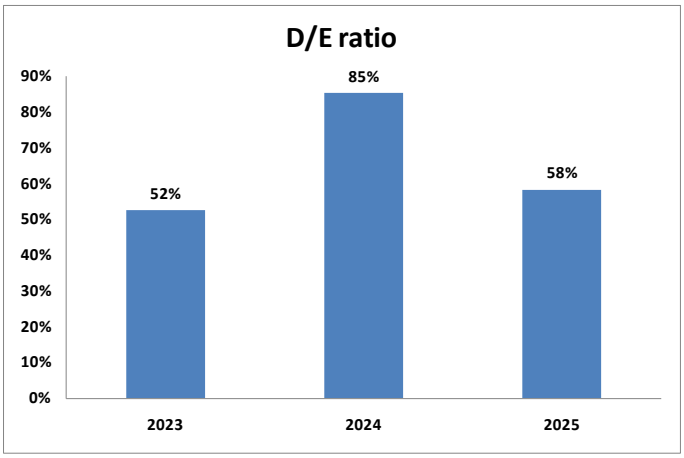


Source: Company reports

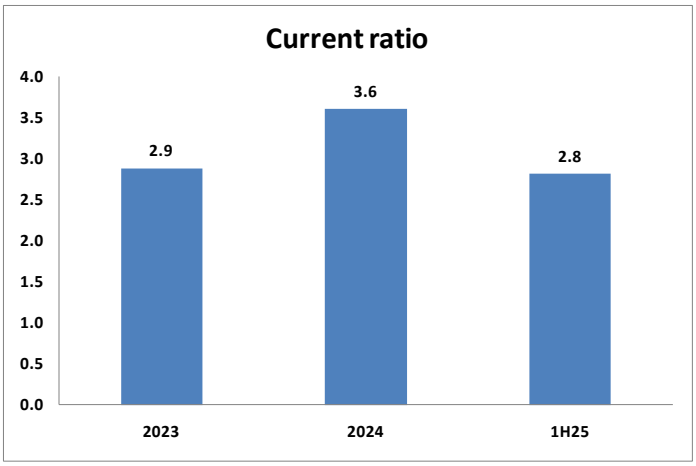
Financial statement analysis: balance sheet and cashflow

The overall balance sheet for Semilux remains at a healthy level in terms of liquidity as evidenced by its current ratio (current assets/current liabilities) at interim 2025 being at 2.8x despite declining from 3.6x at the end of 2024 due to a decline in the cash balance to NTD53.3m vs. 117.7m at the end of 2024.

In terms of debt/equity, this ratio improved to 58% at interim 2025 vs. 85% at the end of 2024. We define debt as borrowings and lease obligations. The largest debt obligation is a NTD90m short-term loan to fund working capital purposes. These loans are secured by time deposits at the lending banks. NTD82m of debt had a maturity date in November 2025 hence we expect Semilux's debt to equity ratio to improve at the end of 2025 unless fresh debt is issued. The company's long-term bank borrowings of NTD30.8m as of interim 2025, consists of term loans obtained from local banks with an interest rate ranging from 2.0% to 2.1% and is scheduled to mature on June 29, 2026. This borrowing is an unsecured credit facility without collateral.



Source: Company reports



Source: Company reports

NTD '000	CY23	CY24	1H24	1H25
Assets				
Current Assets				
Cash and cash equivalents	202,465	117,748	150,108	53,349
Current financial assets at amortised cost	92,115	82,000	97,350	82,399
Accounts receivable net	5,521	6,557	4,714	3,454
Current tax assets		-40,905	2,082	-38,739
Inventories	47,751	15,961	38,120	13,516
Prepayments	6,997	2,455	3,407	2,616
Other current assets		14,085	46,536	63,208
Total current assets	**354,849**	**197,901**	**342,317**	**179,803**
Non current assets				
PPE	47,970	43,279	48,264	53,056
Right of use assets	7,943	25,664	9,024	19,374
Deferred income tax assets		698	7,280	1,852
Other non current assets	38,161	47,622	11,183	44,317
Total non current assets	**94,074**	**117,263**	**75,751**	**118,599**
Total assets	**448,923**	**315,164**	**418,068**	**298,402**
Liabilities				
Current liabilities				
Short-term loan	90,000	90,000	90,000	90,000
Current contract liabilities		52	177	42
Accounts payable	127	16	346	151
Other payables	16,893	0	11,561	0
Other payables to related parties		0	2,487	0
Current lease liabilities	7,943	12,190	5,562	13,416
Long-term liabilities current portion	7,316	13,118	10,910	6,226
Other current liabilities	545	-60,513	551	3,363
Total current liabilities	**122,824**	**54,863**	**121,594**	**113,198**
Non current liabilities				
Long-term borrowings	43,157	43,876	36,983	30,757
Deferred income tax liabilities	73	0	3,645	0
Non-current lease liabilities		13,474	3,259	13,416
Total non current liabilities	**43,230**	**57,350**	**43,887**	**44,173**
Total liabilities	**166,054**	**112,213**	**165,481**	**157,371**
Shareholders equity				
Common stock	260,232	281,510	281,510	281,510
Capital surplus		46,365	46,365	46,365
Retained earnings		-124,924	0	-173,377
Legal reserve	11,077	0	13,956	0
Accumulated deficit	-46,798	0	-89,244	-13,467
Non-controlling interests	58,358			
Total equity	**282,869**	**202,951**	**252,587**	**141,031**
Total liabilities and shareholders' equity	**448,923**	**315,164**	**418,068**	**298,402**

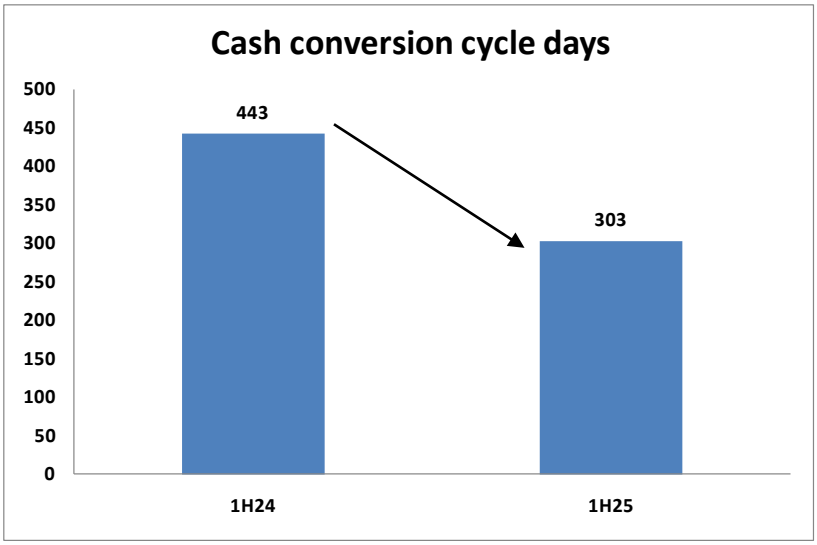
Source: company

The decline in the company's cash level from NTD117.7m at the end of 2024 to NTD53.3m during the 2025 half year interims is partly due to lower cash generated from operations (-NTD32.5m in 1H25 vs. NTD2.2m end of 2024) and a decrease in payables on the cashflow statement which was NTD135k in 1H25 vs. NTD3.1m in 1H24.

During interim 2025, Semilux also paid off a portion of its lease obligations and long-term debt. Despite lower cash levels on an year over year interim basis, Semilux lowered its cash conversion cycle to 303 days in 1H25 from 443 in 1H24. We calculate the cash conversion cycle using ending balance sheet metrics (accounts payable, inventory, accounts receivable).

NTDm	Dec-22	Dec-23	Dec-24	Jun-24	Jun-25
Net cash used in operating activities	36,499	-38,060	2,214	-32,508	-30,720
Net cash used in investing activities	-29,103	-23,565	-36,412	-12,281	-16,222
Net cash used in financing activities	24,638	-67,818	-59,572	-7,568	-17,457
Cash at ending period	**424,023**	**294,580**	**199,748**	**150,108**	**53,349**

Source: company reports



Source: company reports

NTD '000	Jun-24	Jun-25
Loss before tax	-35,825	-54,416
Adjustments		
Adjustments to reconcile profit (loss)		
Depreciation expense	13,179	
Amortization		
Expected credit impairment gain		
Other		
Interest expense	1,480	1,536
Interest income	-6,233	-1,696
Changes in operating assets and liabilities		
Changes in operating assets		
Financial assets at amortised costs	-5,235	-399
Accounts receivable	808	3,103
Inventories	7,155	2,445
Prepayments	1,485	-161
Other receivables	-21	
Other current assets	-17,060	14,405
Other non-current assets		
Changes in operating liabilities		
Current contract liabilities	78	-10
Accounts payable	317	135
Other payables	323	
Other payables to related parties	2,487	
Other current liabilities	6	3
Cash outflow generated from operations	-37,056	-35,055
Interest received	6,233	5,581
Interest paid	-1,397	-1,246
Income tax paid	-288	
Net cash used in operating activities	**-32,508**	**-30,720**
Acquisition of PPE	-12,301	-16,222
Decrease (increase) in guarantee deposits received	20	
Other		
Net cash used in investing activities	**-12,281**	**-16,222**
Increase in short-term loans	8,000	9,000
Decrease in short-term loans	-8,000	-9,000
Payments of lease liabilities	-4,988	-10,564
Repayments of long-term debt	-2,580	-6,893
Increase in long-term debt		
Other		
Net cash used in financing activities	**-7,568**	**-17,457**
Net decrease in cash and cash equivalents	**-52,357**	**-64,399**
Cash at beginning period	**202,465**	**117,748**
Cash at ending period	**150,108**	**53,349**

Source: company reports

Equity valuation range and key risks: cheap vs. peers

Valuation and potential equity value range

Given Semilux's negative earnings and EBITDA resulting in non-meaningful corresponding multiples, we believe the best valuation tool for the company is based on a Price/sales valuation multiple. We deem one possible peer group to be the US listed defense oriented companies with a market capitalization of around USD20 billion or less. This peer group hence excludes mega-large caps such as Lockheed Martin and Northrop Grumman. On a P/S basis, the peer average multiple is 25.6x whereas Semilux is trading at an extreme discount of 7.5x or an 71% discount. We believe one reason for the discount is because Semilux is only at an early stage of UAV development relative to peers which results in the lack of profitability.

If we further exclude higher market cap AeroVironment (AVAV) and Kratos Defense and Security Solutions (KTOS) which have market caps of around USD14-17bn, this new peer average P/S multiple would be even higher at 37.5x where Semilux would now be trading at a 80% discount. This peer group ex-AVAV and KTOS could be a more suitable comparable because the remaining peers would have a market cap of USD5bn or less which is more comparable to Semilux's small cap stock status.

Below, we present the two comparable valuation tables as discussed above with the second table being our preferred valuation comparable excluding AVAV and KTOS where the peer averages are calculated excluding Semilux. The second comparable valuation table is where we base our theoretical equity valuation range for Semilux relative to peer valuation analysis.

Company name	Ticker	Share price	Market Cap USDm	Current P/E	Forward P/E	Current P/S	Current P/B	Current EV/EBITDA	ROE	D/E
Semilux	SELX	0.76	28	NM	NM	7.5x	6.1x	NM	-86.7%	109.1%
AeroVironment	AVAV	278.39	13,901	149.8x	74.1x	8.2x	3.3x	177.6x	-2.6%	18.7%
Kratos Defense and Security Solutions	KTOS	103.01	17,392	732.0x	227.0x	13.7x	9.2x	199.7x	1.2%	6.8%
Red Cat Holdings	RCAT	13.5	1,612	1.1x	NM	63.6x	7.0x	NM	NM	8.9%
Ondas Holdings	ONDS	8.07	4,395	NM	NM	68.0x	9.8x	NM	-17.0%	3.7%
AIRO Group Holdings	AIRO	10.29	322	NM	NM	4.1x	0.5x	29.0x	-0.7%	2.0%
Draganfly	DPRO	7.29	186	10.0x	NM	14.1x	4.0x	NM	-48.3%	0.5%
Average				**223.2x**	**150.5x**	**25.6x**	**5.7x**	**135.4x**	**-25.7%**	**21.4%**
**as of 30 Jan 2026*										

Source: Yahoo Finance

Company name	Ticker	Share price	Market Cap USDm	Current P/E	Forward P/E	Current P/S	Current P/B	Current EV/EBITDA	ROE	D/E
Semilux	SELX	0.76	28	NM	NM	7.5x	6.1x	NM	-86.7%	109.1%
Red Cat Holdings	RCAT	13.5	1,612	1.1x	NM	63.6x	7.0x	NM	NM	8.9%
Ondas Holdings	ONDS	8.07	4,395	NM	NM	68.0x	9.8x	NM	-17.0%	3.7%
AIRO Group Holdings	AIRO	10.29	322	NM	NM	4.1x	0.5x	29.0x	-0.7%	2.0%
Draganfly	DPRO	7.29	186	10.0x	NM	14.1x	4.0x	NM	-48.3%	0.5%
Average ex-Semilux				**5.5x**	**NM**	**37.5x**	**5.3x**	**29.0x**	**-22.0%**	**3.7%**
**as of 30 Jan 2026*										

Source: Yahoo Finance

Given the small market cap and trading liquidity constraints of Semilux, we believe the valuation discount of Semilux compared to peers is justified. Even after taking a 40-25% discount from the peer average P/S multiple (excluding AVAV and KTOS) results in a Semilux target multiple of 22.5 to 28x representing a possible 202 to 277% upside from the current share price based on a relative comparable peer analysis. On a share price level, the potential equity value range based on the above would be USD2.3 to 2.9 compared to USD0.76 as of January 30, 2026.

We acknowledge that the 40-25% discount is arbitrary and below we present possible equity value ranges based on a distribution of discounts of 0 to 75% from the sector average (ex AVAV and KTOS) P/S multiple of 37.5x (ex-Semilux). This results in a potential target equity value range from USD1 to 3.8 representing 26 to 403% potential upside.

Semilux current share price (USD) as of 30 Jan 26	Semilux current P/S multiple	Sector avg P/S multiple	Discount to avg sector P/S multiple	Target P/S multiple	Semilux potential share price (USD)	% Upside
0.76	7.5x	37.5x	0%	37.5x	3.8	402.9%
			25%	28.1x	2.9	277.1%
			40%	22.5x	2.3	201.7%
			50%	18.7x	1.9	151.4%
			60%	15.0x	1.5	101.1%
			70%	11.2x	1.1	50.9%
			75%	9.4x	1.0	25.7%

Key risks

Excess competition in UAV segment

The markets for sensing technology applicable to UAVs are highly competitive and Semilux's future success will depend on its ability to maintain its lead by continuing to develop advanced LiDAR and optical technology in order to stay ahead of existing and new competitors. The company's OEM/ODM and component competitors are numerous within the Taiwan UAV space which include the likes of Thunder Tiger, Geosat Aerospace, Coretronic and Aerospace Industrial Development Corp. Excess competition could result in lower than expected sales, operating margins and profitability.

New business segment risk

Semilux has historically been engaged in the automotive optical component space and has only entered into UAVs since mid-2024. New initiatives are inherently risky, as each involves unproven business strategies and new product offerings with which Semilux has limited or no prior development or operating experience. The company's future success is mainly dependent on the successful commercialization of its UAV components and hardware. The investment in product development may involve a long or immaterialized payback cycle which may negatively impact business results such as margins and profitability.

Technology changes in UAV optical components
LiDAR products are still relatively new in the market and it is possible that other sensor technologies and devices, based on new technology will achieve acceptance within the UAV optical component segment. Even if LiDAR products are used in initial generations of UAV optical solutions, LiDAR products may not be included in subsequent generations of such commercialized technology.

Semilux products may not meet market needs
Continuing technological changes in sensing technology, as well as changes in the UAV industry, could adversely affect adoption of LiDAR and other optical sensing components. Semilux's future success will depend upon its ability to develop new innovations to its existing product offerings, and to introduce new product offerings to address the changing needs of the end markets.

Semilux R&D spending has been historically high due to new product development yet the company has not seen any profitability. If Semilux cannot devote adequate resources to develop products that meet customer requirements at a competitive price or cannot remain competitive with other technological alternatives, Semilux could lose market share, its revenue will decline and the company may suffer from operating losses.

Changes in end market demand
While the Taiwan government has set an aggressive growth target for defense oriented UAVs, no guarantee exists that these targets will remain if the current global political tensions ease such as a resolution in the Russia-Ukraine conflict or an easing of tensions in the cross strait relations with Mainland China. Furthermore, changes in government administrations may result in lower defense spending on a macro level which could reduce the procurement of defense technologies and hardware.

Change in government grants
Any reduction of government grants that Semilux indirectly receives regarding its research and development collaboration activities for LiDAR may result in the diminished competitiveness of the company's end product. There is no guarantee that such government grants, which have been made available for development of LiDAR at NCHU, will be available in the future. If the current government grants are not available in the future, the company's development of LiDAR and other optical technologies may stagnate or cease, which could adversely affect Semilux's business.

Low trading volume of the shares traded
The 3-month average volume of shares traded is around 1.2m. This illiquidity of the traded volume can result in extreme volatility among the share price. Retail investors are likely to be the dominate investors in the shares given the low trading volume which may result in greater share price volatility if this group of investors actively trades the shares for short term holdings.

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