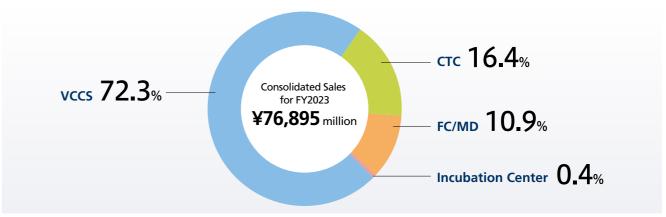
# Yokowo's Business Domain

The Yokowo Group has refined our core technologies by incorporating various technologies such as antenna and microwave technologies, while further deepening the technologies in micro precision processing. We have expanded our business scope to include antennas, connectors, and advanced device products, and currently operate in four segments: VCCS (formerly Vehicle Communication Equipment), CTC (formerly Circuit Testing Connector), and FC/MD (formerly Personal Communication Equipment), and Incubation Center. Yokowo will continue to strive for further growth and increase our corporate value by quickly identifying the needs of next-generation electronics and continuing to propose and provide cutting-edge products to the world.

## **▼** Business Domain Map **VCCS** CTC (formerly Vehicle Communication Equipment) (formerly Circuit Testing Connectors) Sales: ¥55,583 million Sales: ¥12,585 million (+20.6% YOY) (-43.7% YOY) Semiconductor Testing Tools Shark Fin Antennas GNSS Antennas Probe Cards Hi-Giga-Socket yokowo FC/MD **Incubation Center** (formerly Wireless Communication Equipment) Sales: ¥8,373 million Sales: ¥345 million (-7.5% YOY) (-19.7% YOY) Connectors for **Platform Business** Antennas for IoT **Electronic Devices Medical Devices** (Fine Connectors) SPRING CONNECTOR™ Coils for Guide Wires GNSS Full Band

### **▼** Ratio of Consolidated Sales by Segment



### **VCCS** (Vehicle Communication Comfort & Safety)

Yokowo manufactures antennas for cars (vehicle antennas), such as the Shark Fin antenna, mainly for the automotive market. By continuing to develop and propose antenna systems to the customers that support next-generation vehicle communication which meet the basic needs required for smaller, multi-use, lower profile and smart vehicle antennas, Yokowo is helping to create safe and comfortable mobility services.

### **CTC** (Circuit Testing Connector)

Yokowo manufactures probe cards for frontend testing and sockets for backend testing mainly for the semiconductor and electronic component testing market.

By making full use of its micro precision processing and microwave technologies, the Company provides solutions for all processes in the area of testing for electronic devices, such as semiconductors and electronic components, so as to meet the demands for smaller size and greater speeds.

### **FC/MD** (Fine Connector • Medical Device)

#### Fine Connector (FC) Business

Yokowo is globally developing and providing minute SPRING CONNECTOR™ that meet the needs for miniaturization and space saving in various electronic devices, mainly for the mobile communications terminal market.

### Medical Device (MD) Business

Yokowo provides a complete service from the design to the development and manufacturing of OEM guide wires, catheters and other micro precision parts and assembly products, mainly for the minimally invasive medical equipment market.

### **Incubation Center**

#### **Platform Business**

Yokowo provides higher value-added products by applying our advanced antenna technologies cultivated in the automotive industry to new markets such as advanced driver-assistance systems (ADAS), automated driving, and connected cars.

### **Antennas for IoT Applications**

Yokowo provides 4G/5G antennas and high-precision GNSS antennas for markets beyond automotive. We provide high-performance antennas to control and operate everything with greater precision as everything becomes connected and automation accelerates.

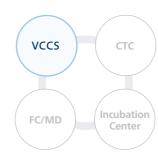
27 | Yokowo 2024 Integrated Report | 28

## **VCCS Segment**

### **▼** VCCS segment - Consolidated Sales

(million yen

vees segment consonance sales			(	
FY2019	FY2020	FY2021	FY2022	FY2023
39,264	37,292	40,081	46,089	55,583



### **Segment Overview**

In the VCCS (Vehicle Communication Comfort & Safety) segment, Yokowo manufactures vehicle antennas, including Shark Fin and GPS antennas for all areas from low to high frequency, mainly in China, Vietnam, and the Philippines with over 90% of production taking place overseas. Regarding sales, we mainly provide our vehicle antennas to Japanese automobile manufacturers, not only in Japan but also globally in the United States and ASEAN markets. Overseas sales account for over 70% of all sales in this segment.

As a leading company of antenna systems that support next-generation vehicle communications, Yokowo will continue to strengthen its core technologies including antennas, and promote drastic reforms to its profit structure to continue to generate long-term profits.

## **Segment Review (Fiscal 2023)**

In the automobile market, the main market for this segment, during the fourth quarter there was a drop in production by some customers, but an easing in the global shortage of semiconductors and the stagnation of parts supply resulted in sales trending upward. Sales increased in each region, led by the US, China, and Japanese domestic markets.

In these circumstances, sales of antennas for automobile manufacturers such as Yokowo's mainstay Shark Fin and GPS antenna products increased year on year due to increased production of vehicles and the weaker yen.

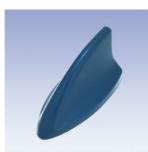
As a result, net sales in this segment grew year on year to ¥55,583 million (up 20.6% on previous year). In regard to segment profit and loss, despite increased labor costs at production sites in China and Vietnam resulting from currency appreciation and increased business volume, increased profit due to higher sales, reduced logistics costs due to the stabilization of ocean freight rates, and progress in recovering cost increases meant that the segment reported a profit of ¥3,100 million (a loss of ¥1,701 million in the previous year).

## **Segment Policy**

Looking forward, Yokowo will use the opportunity to take advantage of major shifts in the business environment—these include the development of new business fields such as CASE\* and ADAS (Advanced Driver Assistance Systems), rapid growth in EVs, and reductions in GHG emissions. While working on the development of more advanced strategic products with higher levels of added value, we will work toward stable profitability as a business through comprehensive and thorough reforms in everything from product costs to business structure.

In this context, we will propose next-generation products to existing customers in line with the evolution in vehicles, and promote the expansion in sales of standard components in areas of growing demand such as China and India. In addition to carefully selecting investment projects aimed at improving capital efficiency, we will forge ahead in rebuilding its profit strategy and creating a multilayered development and production system by stably expanding labor-saving, automatic assembly lines, moving more production from our Chinese plant to our Vietnamese plant, and expanding production from our Vietnamese plant to our Philippines plant as a third production base, and making the most of strategic alliances.

 ${}^{\star}\mathsf{CASE} \text{: Connectivity / Autonomous / Shared / Electric, new trends in automobiles}.$ 







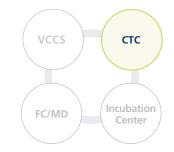
GNSS Antennas (supports multiple satellite positioning systems, including GPS, GLONASS, and Galileo, etc.)

## **CTC Segment**

**▼ CTC Segment - Consolidated Sales** 

(million yen)

FY2019	FY2020	FY2021	FY2022	FY2023
12,832	13,242	17,625	22,374	12,585



### **Segment Overview**

In the CTC (Circuit Testing Connector) segment, Yokowo manufactures contact probes making full use of its micro precision processing technology, and also manufactures probe cards for front-end testing and sockets for back-end testing in semiconductor manufacturing processes, both of which use contact probes. Yokowo has production bases in Japan, Malaysia, and Vietnam with overseas production accounting for over 60% in this segment. Products are supplied worldwide, mainly to semiconductor manufacturers and foundries, with over 80% of sales going overseas.

In recent years, Yokowo has expanded its product lineup in cutting-edge fields, such as testing sockets for testing 5G devices that use microwave technology, and probe cards for the testing of high-frequency electronic components (YPX) that make use of MEMS technology.

## **Segment Review (Fiscal 2023)**

In the semiconductor testing market, the main market for this segment, was booming as the generative Al-related market came into the limelight, but in addition to a significant decline in demand for PCs and smartphones, the largest market segment, demand for servers was also sluggish, leading to a series of inventory adjustments and capital investment cutbacks by semiconductor manufacturers.

In these circumstances, sales of semiconductor back-end testing tools, the main product of the Group, were significantly lower than the previous year due to a decline in orders for sockets for logic semiconductor testing and other products. Sales of semiconductor front-end testing tools also decreased compared to the previous year, due to sluggish sales of turnkey business, which offers one-stop solution services including peripherals, and sales of MEMS probe cards (YPX) for high-frequency electronic components testing.

As a result, net sales in this segment were 12,585 million yen (down 43.7% year on year), a significant decrease from the previous year. Despite efforts to control labor and other

expenses, the segment recorded a loss of 794 million yen (compared with a profit of 6,169 million yen in the previous year), mainly due to lower profits resulting from lower sales.

## **Segment Policy**

At present, the semiconductor process node has advanced to the 2-nanometer level, and in addition to the miniaturization of the semiconductors themselves, heterogeneous packaging with chiplet mounting is becoming the mainstream technology for the simultaneous mounting and encapsulation of different semiconductor chips in the same package as a measure to further increase the level of integration. Under such circumstances, the technology required for semiconductor inspection becomes more important with the further front-end microprocessing technology. To this end, in addition to the high-frequency and high-speed signal inspection technology we have been working on, it is necessary to further reduce the size of the contactor itself. Yokowo will support the development of new products and respond to customer needs by incorporating MEMS technology and other technologies through alliances. In addition to Malaysia, our core plant for probes used in back-end semiconductors, which is an existing technology, our Vietnam Plant, which we launched in 2022, has expanded and is operating stably. In the Japan Plant, we will build automated assembly lines and automated inspection systems that can keep pace with newly developed products that are difficult to develop and mass produce. Yokowo will strongly promote innovation in production processes in preparation for the recovery of the semiconductor market and technological evolution, and strive for stable business operations by building a highly profitable structure and launching new product businesses.





Contact Probes

YPX

29 | Yokowo 2024 Integrated Report | 30

# **FC/MD Segment**

### ▼ FC/MD Segment - Consolidated Sales

(million yen

v i c, iiib beginent	consolitated sales			(
FY2019	FY2020	FY2021	FY2022	FY2023
8,498	9,441	9,141	9,051	8,373



## **Segment Overview**

This segment consists of two businesses; FC (Fine Connector) and MD (Medical Device).

In the FC business, Yokowo manufactures SPRING CONNECTOR™ which allow for easy attachment and detachment to electronic devices. These connectors are manufactured in Japan, Malaysia, and China, with over 80% being produced overseas. Yokowo supplies a wide range of electronic device manufacturers in Japan and overseas, with over 80% of sales going outside Japan.

In the MD business, in addition to micro precision parts such as OEM guide wires and catheters, Yokowo designs, develops, and manufactures assembly products at its Tomioka plant in Japan. Yokowo mainly supplies domestic medical device manufacturers, with approximately 10% of sales going overseas.

## **Segment Review (Fiscal 2023)**

In the market for mobile communication terminals, a main market for this segment, sales of smartphones were sluggish due to the impact of the global business downturn. However, sales of wearable terminals are expected to grow given their diversification and greater sophistication. The POS terminal market as well has been growing steadily in a wide range of industries, including those engaging in logistics and manufacturing, with a view toward improvements in operational efficiency through information management, however demand is softening.

In these circumstances, net sales for the FC business, for which fine SPRING CONNECTOR™ act as core products decreased year on year due to a decrease in orders for POS terminals because of customers production adjustments, along with lower sales in wearable devices such as wireless earbuds.

In the MD business, sales increased year on year, reflecting increased orders for catheter components as well as unit products from major domestic medical device manufacturers, who are our main customers.

As a result, net sales in this segment decreased year on year to ¥8,373 million (down 7.5% on previous year). In regard to segment profit and loss, in addition to a drop in profits from reduced income in the FC business, an increase in the laborcost ratio at production bases in China caused in part by the appreciation of the Chinese yuan together with changes in the business composition meant that profit decreased to ¥117 million (down 85.2% on previous year).

## **Segment Policy**

In the FC business, Yokowo aims to establish a competitive advantage by honing our core competencies, and to evolve into a connectors solution provider by creating new customer value through leveraging our unique strengths as a company. The Group will redefine the wide variety of markets, and provide an advanced user experience (UX) by using product planning and sales strategies tailored to our target markets.

In the MD business, Yokowo aims to further grow the business by increasing the production capacity of micro precision parts with the installation of cutting-edge production equipment and by expanding sales of guide wire and catheter assembly products in Japan and overseas, and by shifting over to a global quality control system covering the entire product life-cycle.

Yokowo will strengthen our efforts in the venture ecosystem as a manufacturing partner that brings product ideas from venture companies in Japan to reality, and as a planning product development and development-type OEM supplier in the advanced medical field, will achieve active business expansion.





SPRING CONNECTOR™

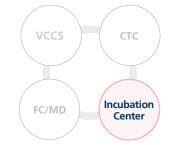
Coils for guide wires

## **Incubation Center**

#### **▼** Incubation Center Consolidated Sales Trends

(million yen)

FY2019	FY2020	FY2021	FY2022	FY2023
_	_	_	430	345



### **Segment Overview**

The Incubation Center spearheads innovation in business models at Yokowo—it develops and markets subscription-based businesses tailored for the Mobility as a Service (MaaS) market along with products for the IoT market beyond the automotive sector. By seeking out and partnering with external companies who possess complementary technologies, rather than merely limiting itself to in-house technology, it is promoting both the provision of products and solutions that create new markets, and the transformation of the Yokowo Group's business model.

Advancing IoT adoption to enhance operational efficiency and addressing labor shortages require high-precision antenna technology. Yokowo will contribute to solving social issues by leveraging its expertise in antenna technology cultivated within the automotive industry to provide these markets with high-precision antennas and related solutions.

## **Segment Review (Fiscal 2023)**

Our company has been active in full-scale business development for new growth markets such as MaaS and IoT, aiming to create new businesses and innovate business models.

Following an organizational restructuring during the current consolidated fiscal year, these new business areas were separated from existing business divisions, thereby newly categorizing the Incubation Center as a distinct reporting segment. The key markets for this segment, namely MaaS and IoT, are expected to experience steady growth from advancements in mobility services, such as car sharing and the widespread adoption of IoT, in which myriad devices are connected to the internet.

In these circumstances, Yokowo has expanded sales of MIMO antennas incorporating smart antenna technology for IoT, and vehicle key management solutions for MaaS and rental cars. As a result, net sales in this segment decreased year on year to ¥345 million (down 19.7% on the previous year). With regard to segment profit and loss, this segment, which is centered on

new businesses that are just getting started, has shown limited sales figure coupled with upfront investments resulting in a loss of ¥811 million (¥534 in the previous year).

## **Segment Policy**

Building on our strong technological strengths in automotive antenna manufacturing, we are promoting operations aimed at creating new businesses, targeting emerging new growth markets such as MaaS and IoT.

Looking forward, Yokowo plans to expand beyond its existing technologies and search out partner companies who possess technologies that meet customer needs, and through collaboration with them, aims to provide products and solutions that create new markets. We actively participate in exhibitions not only in Japan but also in the U.S. and the EU with the aim of identifying global market needs and enhancing our brand recognition in the new markets—this initiative is part of promoting our business model transformation from selling things to selling solutions. We are also leveraging corporate partnerships, M&A, and active investment in co-creation companies, thereby complementing our technology, human resources, and equipment. Through this, we will develop new business areas, and create new business models for the Yokowo Group.





GNSS Full Band Antennas

Private 5G MIMO Antennas

31 | Yokowo 2024 Integrated Report | 32