

# **Richardson Electronics**

## **Q4 FY2024**

### **Investor Presentation**

July 24, 2024

NASDAQ: RELL



# Forward Looking Statement

This overview includes certain “forward-looking” statements as defined by the Securities and Exchange Commission. Statements regarding the Company’s business which are not historical facts represent “forward-looking” statements that involve risks and uncertainties. For a discussion of such risks and uncertainties, which could cause actual results to differ from those contained in the forward-looking statements, see Item 1A, “Risk Factors” in the Company’s Annual Report on Form 10-K. The Company assumes no responsibility to update the “forward-looking” statements in this overview as a result of new information, future events, or otherwise.





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# About Richardson Electronics



# ENGINEERED SOLUTIONS



Richardson Electronics (NASDAQ: RELL) designs and manufactures nearly 55% of the products it sells for power, microwave, and imaging solutions to industries worldwide.

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Technical expertise and “engineered solutions” based on our core engineering and manufacturing capabilities

Value added solutions through design-in support, system integration, prototype design and manufacturing, testing, logistics, and aftermarket technical service and repair

Global infrastructure and support to serve customers wherever they are located

## VISION

To make our world a better, more sustainable place by providing innovative technology solutions.

## MISSION

We provide solutions that improve our world through innovative engineering and manufacturing in collaboration with our employees, customers and technology partners.

## VALUES

- We are a diverse family; we take care of our people.
- We focus on long term viability for our company, our community and our world.
- Every interaction is important and deserving of respect.
- We believe in hard work, reward, and the determination to succeed.



# Key Facts & Figures



Strong balance sheet with robust cash and cash equivalents and no debt



Certified experts that are ISO 9001:2015 and ISO 13485:2016 certified



440+ employees with over half in sales, engineering and product management



More than 20,000 OEM and end-user customers throughout the world



Headquarters in LaFox, Illinois



RELL is global with 60+ locations worldwide with legal entities in 24 countries





# Our Business Units



## Power & Microwave Technology (PMT)

- FY2024 Revenue: \$128.7M
- Power grid and microwave tubes (EDG)
- Power management for 5G (PMG; started in 2014)
- In-house manufacturing and partnering with leading technology suppliers
- Global engineering and design support
- Key supplier to semiconductor industry



## Green Energy Solutions (GES)

- FY2024 Revenue: \$23.2M
- Designs and manufactures key products for the fast-growing energy storage market and power management applications
- Leverages existing global infrastructure and expertise
- Products for numerous green energy applications such as wind, solar, hydrogen, EVs, and synthetic diamonds



## Healthcare

- FY2024 Revenue: \$12.1M
- CT and MRI replacement tubes
- Diagnostic imaging replacement parts
- CT service training and technical support
- P3 Service Contracts for managing maintenance and repair costs
- State of the art manufacturing facility



## Canvys

- FY2024 Revenue: \$32.4M
- Custom display solutions for healthcare, industrial, retail and transportation applications
- All-in-one computer display solutions
- Engineering design and support

# A Legacy of Engineered Solutions

## A Future of Innovation

**Power Grid Tubes**



**CW Magnetrons**



**Ignitrons &  
Thyratrons**



**Microwave  
Generators**



**Pulse Magnetrons**



**Ultracapacitors**



**CT Replacement  
Tubes**



**Refurbished CT  
Systems**



**Custom OEM  
Displays**



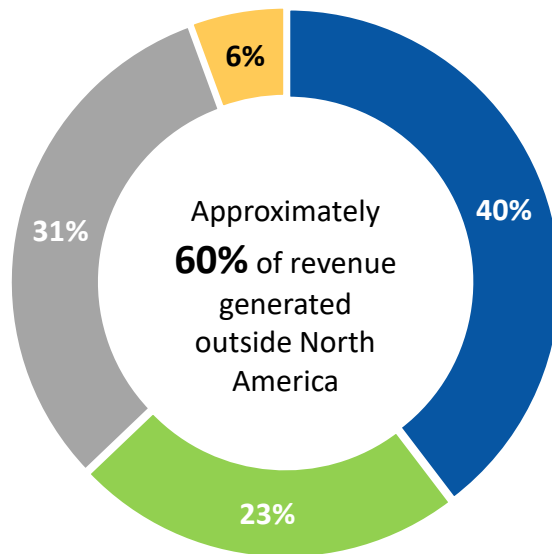
**All-In-One  
Computer Solutions**





# Local Service Supported Through Extensive Network of Over 60 Global Locations

## FY2024 Sales by Geography



■ North America ■ Asia/Pacific ■ Europe ■ Latin America

## Sophisticated Global Infrastructure

- More than 60 sales offices & stocking locations
- Global field engineering support including over 75 RF, Microwave and CT engineers for leading technology suppliers
- Service and repair supported by local presence
- IT Infrastructure supports global visibility into real time inventory, quote and orders
- Information shared across organization to identify opportunities and facilitate design wins

## Global Logistics and Supply Chain Capabilities

- Importer of record in 24 countries with international distribution hubs in North America, Asia, and Europe
- Shipment to any location worldwide in one to three business days
- Transactions in local language, and local currency
- Maximum flexibility including small quantity orders
- Export Control Classifications Number ("ECCN") items flagged for export control



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# Growth Strategies

# Strategy Supported by Strong Core Business, New Products and New Markets

*Management has created a strategic plan focused on driving growth and creating sustainable value for shareholders*



Growth supported by strong core business, 75+ years of engineering capabilities, and global platform



Strategy focused on leveraging core engineering capabilities to expand product lines into large, fast growing global markets

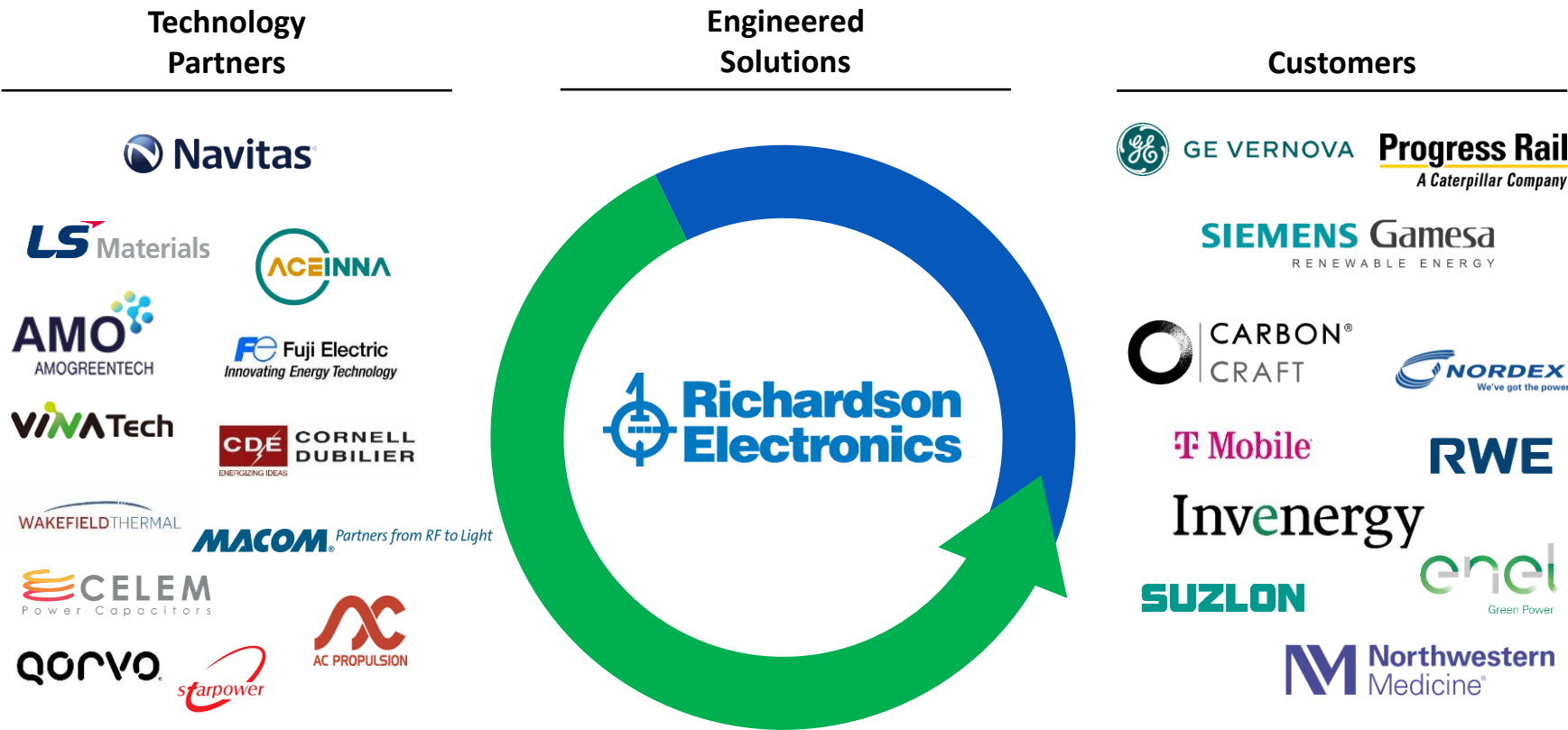


Global footprint supports customers and maintains strong strategic partnerships with leading manufacturers

**New markets and applications support significant expansion to the Company's growth opportunities**



# Unique Relationships with Technology Partners Deepens Customers Relationships



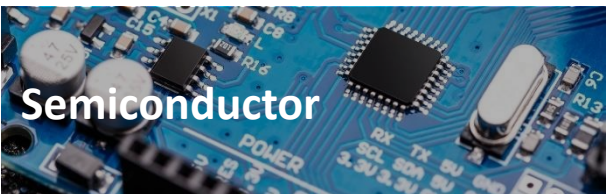



Strong relationships with global technology partners expands Richardson Electronics' sales and deepens customer relationships from components to Engineered Solutions

# Growth Opportunities and Focus:

Richardson's Strategy Aligned with Compelling Market Dynamics



Market	Market Driver / Update	Richardson Opportunity
 Green Energy/Power Management	<ul style="list-style-type: none"><li>• Power management section of systems using distributive technology</li><li>• Growing markets that need new technology and products to support changing power management systems</li></ul>	<ul style="list-style-type: none"><li>• Developing patented technology for niche applications in niche markets</li><li>• Patented products for growth markets such as wind, solar, EV, generators, BMS modules, and ESS (energy storage systems)</li></ul>
 Power Grid Tubes	<ul style="list-style-type: none"><li>• New applications are supporting growth in microwave tubes and magnetrons</li><li>• Examples include emerging markets such as synthetic diamonds, hydrogen, and building materials</li></ul>	<ul style="list-style-type: none"><li>• RELL is one of the few remaining tube manufacturers and engineering companies</li><li>• For example, RELL's 6KW magnetrons are being used for producing synthetic diamonds; replacement cycle every two years</li></ul>
 Semiconductor	<ul style="list-style-type: none"><li>• Semiconductor capex cycle expected to remain strong over the long term</li><li>• LAM Research, a RELL semiconductor customer, expects demand to return to growth in calendar 2024</li></ul>	<ul style="list-style-type: none"><li>• Products support the global semiconductor wafer fab equipment market</li><li>• RELL well positioned for high mix/low volume production and engineering design and support</li></ul>
 Healthcare	<ul style="list-style-type: none"><li>• Very few replacement options for CT tubes</li><li>• OEMs charge high prices for tubes and parts if hospital is not covered by expensive OEM service contract</li></ul>	<ul style="list-style-type: none"><li>• Helping customers improve efficiency and deliver better clinical outcomes while lowering the cost of healthcare delivery</li><li>• \$10 billion estimated global opportunity for aftermarket for diagnostic imaging parts and service</li></ul>

# Growth Strategies Align with Large Multi-Year Secular Trends

## IRA (Inflation Reduction Act)<sup>1</sup>

- **\$370 Billion** invested in Energy Security and Climate Change Programs (electric, solar, battery) over the next ten years.
- The Inflation Reduction Act creates a new production tax credit for domestic manufacturing of components along the supply chain for solar modules, wind turbines, battery cells and modules, and critical minerals processing.

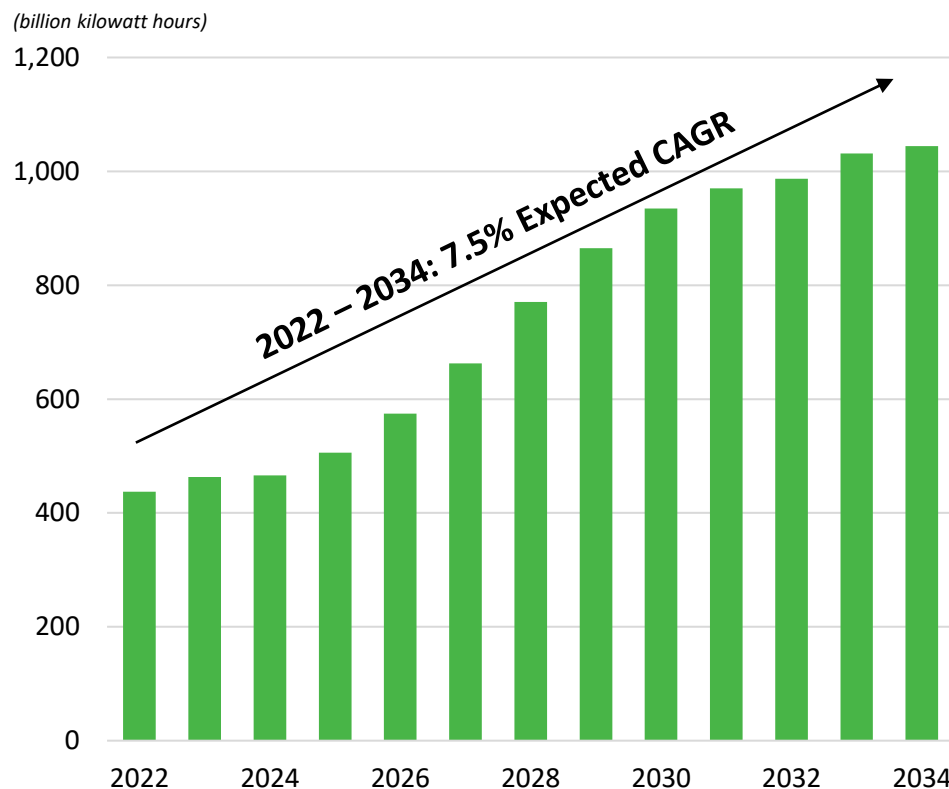
## IIJA (Infrastructure Investment and Jobs Act)<sup>2</sup>

- The legislation includes around **\$550 billion** in new federal investment in America's roads and bridges, passenger and freight rail, power and grid reliability and resiliency, and more.

## International Energy Agency Renewables Report 2023<sup>3</sup>

- Solar PV and onshore wind additions through 2028 is expected to **more than double** in the United States, the European Union, India and Brazil compared to the last five years.

## Growing Wind Generation<sup>4</sup>



<sup>1</sup> <https://www.whitehouse.gov/wp-content/uploads/2022/12/Inflation-Reduction-Act-Guidebook.pdf>

<sup>2</sup> <https://www.whitehouse.gov/briefing-room/statements-releases/2021/08/02/updated-fact-sheet-bipartisan-infrastructure-investment-and-jobs-act/>

<sup>3</sup> [https://iea.blob.core.windows.net/assets/96d66a8b-d502-476b-ba94-54ffda84cf72/Renewables\\_2023.pdf](https://iea.blob.core.windows.net/assets/96d66a8b-d502-476b-ba94-54ffda84cf72/Renewables_2023.pdf)

<sup>4</sup> According to the 2023 Annual Energy Outlook from the U.S. Energy Information Administration



# ULTRA3000® Case Study: New Product and Market Development



## Customer Problem:

Wind turbine manufacturers and operators needed an environmentally friendly solution to extend the life of auxiliary power supplies for their Pitch Energy Modules

## Richardson Electronics' Solutions:

Developed the first ultracapacitor-based plug-and-play replacement for batteries within wind turbine pitch systems



**FY2021**

### PRODUCT DEVELOPED

- Leveraged experience in ultracapacitor technologies
- Worked with technology partners
- Created specifically for replacement market within wind turbine generators (WTG)
- Patented product with 30+ protected embodiments

**FY2022**

### PRODUCT LAUNCHED

- Product from conception to > \$10 million in shipments and backorders in < 14 months
- Initial launch just for replacement product within existing GE WTG
- Over 40K modules shipped since product inception

**FY2023+**

### PRODUCT LINE AND MARKET EXPANSION

- Expanded market opportunity to serve multiple WTG manufacturers and operators
- Developed new ancillary products including the: UltraUPS3000, ULTRAPEM™ Multi-Brand Pitch Energy Module, and new Diagnostic and Voltage Reduction Tools
- IGBT/Silicon Carbide power modules

# Progress Rail Case Study: Building Larger Customer Relationships

1

Relationship with Progress Rail begins, and Richardson Electronics starts supplying IGBT power module design to Progress Rail in Brazil

2

Richardson Electronics began working on a design development for battery management systems with Progress Rail Brazil

3

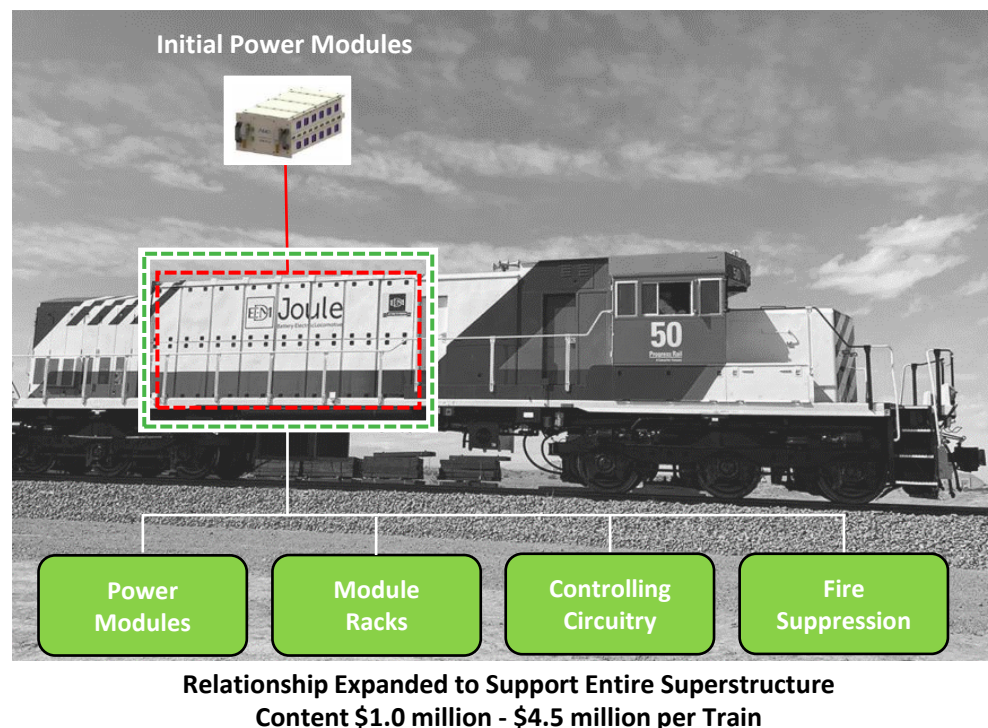
Richardson Electronics works with Progress Rail in the U.S. to offer Engineered Solutions beyond initial scope

4

Progress Rail selects Richardson Electronics to design and manufacturer superstructures for Progress Rail's Electric Locomotives in North America

5

Product line expansion including battery start modules for trains and other applications





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# Business Unit Update

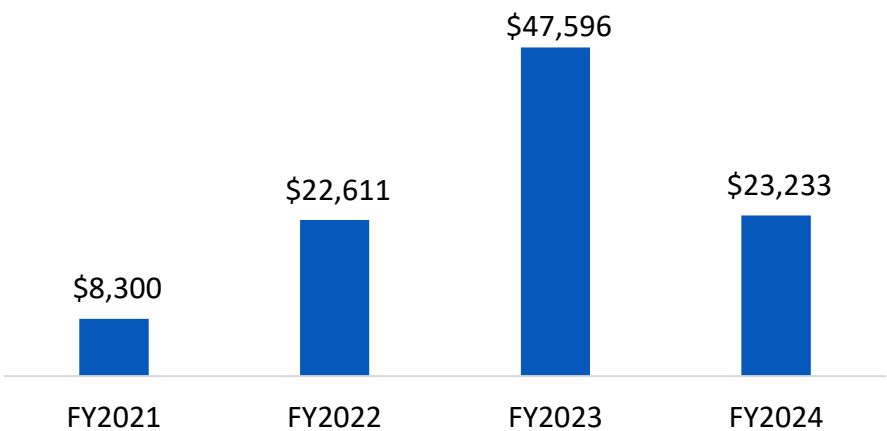


# GES FY2024 Update

## GES Highlights

- Project based sales and the timing of orders impacted FY2024 year-over-year comparisons
- The Company has not lost any opportunities or market share
- Second half FY2024 revenues were up over 131% from the first half
- Improved sales expected in FY2025 driven by:
  - Growing opportunities with new customers and products for the wind turbine industry
  - New EV applications, power management, and energy storage
  - Growing partnership with Progress Rail, a Caterpillar Company, for production of lithium iron phosphate batteries for use in electric locomotives

GES Sales (\$ in 000s)



\*FY2023 included a large sale of EV locomotive battery modules that did not recur in FY2024



# Power & Microwave Technology (PMT) Opportunity



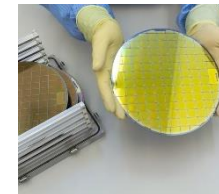
The leading provider of power and microwave components and related consumable parts

- **Electron Device Group (EDG)** which includes legacy tube business and semiconductor wafer fab; recurring revenue from sole-source consumable products
- **Power and Microwave Group (PMG)** which includes RF, wireless semiconductors, modules and power components
- Global provider of Engineered Solutions focusing on industrial tube manufacturing, microwave generators, power supplies and customer specific applications and assemblies
- Highly specialized in demand creation for new technologies
- We partner with manufacturers of leading edge and disruptive technologies. These technologies drive the latest innovations for our customers.

Bringing key technologies and solutions to the world for power, microwave niche applications



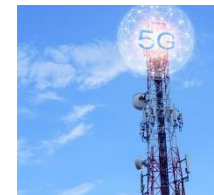
**Power Management**



**Semiconductor**



**Defense**



**RF and Wireless Communications**



**Marine**



**Avionics**



**Scientific & Medical**



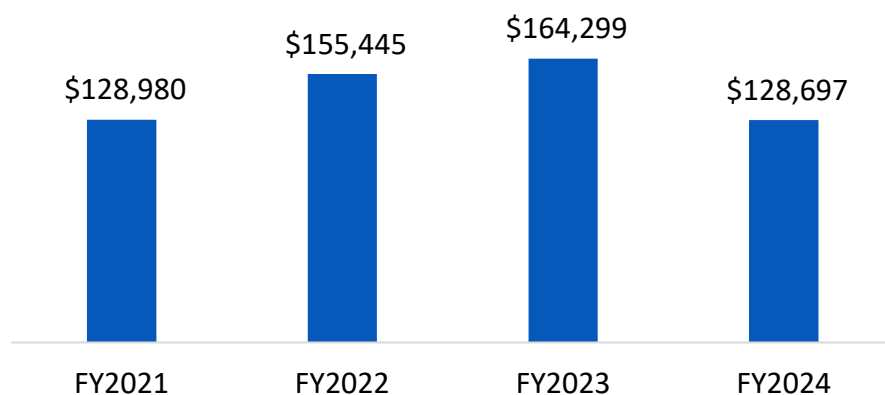
**Industrial**

# PMT FY2024 Update

## PMT Highlights

- Full year FY2024 was challenged by weaker demand from semiconductor wafer fab customers, which impacted sales by \$25.2 million year-over-year
- Semiconductor wafer fab demand increased during the fourth quarter of FY2024 driven by higher shipments and bookings
- Expect the semiconductor wafer fab market to begin to recover in the second half of calendar 2024
- Continuing to expand product lines and leverage the Company's global customer base of over 20,000 customers

## PMT Sales (\$ in 000s)



*Richardson Healthcare provides OEM quality replacement parts and training to support in-house clinical engineering and third-party equipment maintenance companies.*



Richardson Healthcare's CT Tube Programs provide exact form and function replacements for popular OEM CT scanners helping reduce healthcare costs by offering an alternative to higher cost OEM parts.



The Company has invested over \$35 million in its Healthcare SBU, creating a best-in-class, value-added CT Tube and CT refurbishment platform.



Richardson Healthcare first launched the ALTA750D in May 2018, followed by the ALTA750G in 2022, and expects to launch a Siemens repaired CT Tube Program in 2023.

**\$10 billion estimated global opportunity for aftermarket diagnostic imaging parts and service**

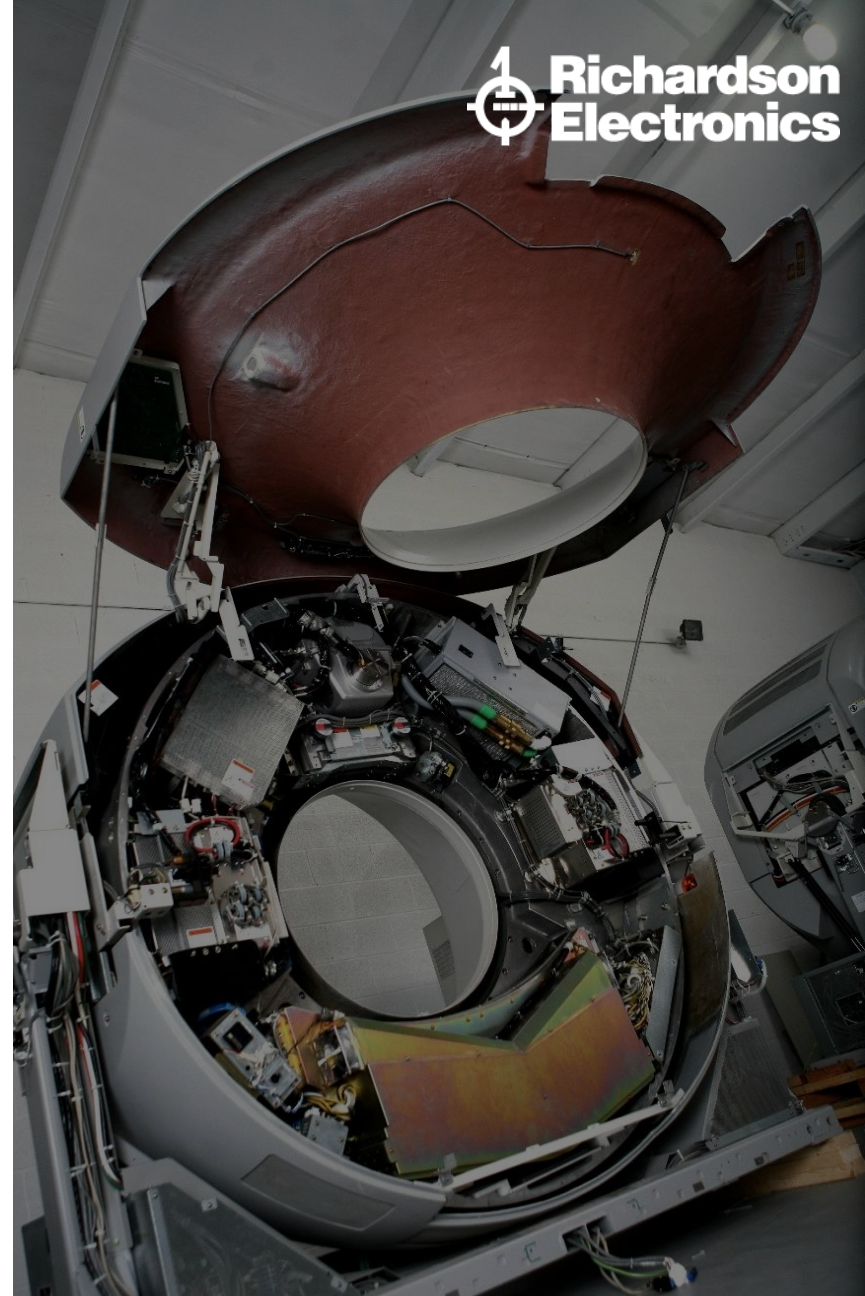
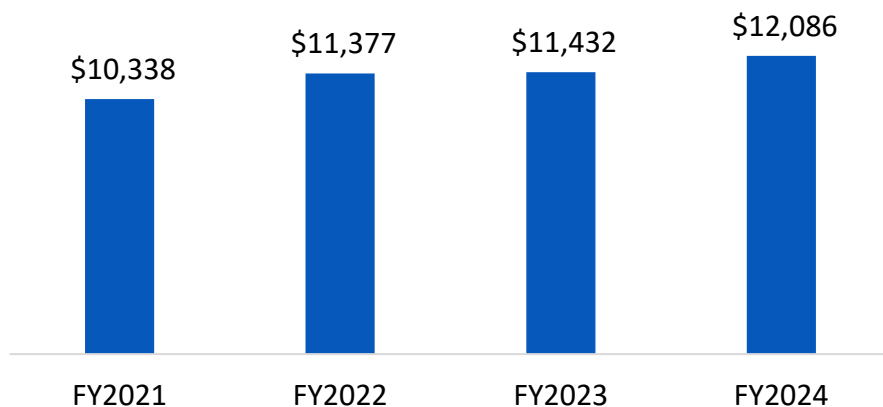


# Healthcare FY2024 Update

## Healthcare Highlights

- In the full year FY2024 sales for both CT tubes and parts improved, driving a 5.7% year-over-year increase in sales
- Made significant improvements to the Siemens repair program during the fourth quarter of FY2024.
- The repaired Straton Z tubes are in full production, performing well in the field, and Straton Z sales are just starting to ramp up with a steadier flow of production
- Management continues to closely monitor Healthcare's financial performance

## Healthcare Sales (\$ in 000s)



*Canvys is a global value-added integrator and manufacturer that specializes in creating comprehensive visual technology solutions for OEMs.*



Canvys is focused on providing small run, smart displays for specialized applications - often for demanding environments.



Canvys brings together a deep understanding of visual technologies, wide-ranging capabilities and a worldwide network to create complete solutions for OEM customers.



Expertise manufacturing display sizes from 5" to 58", with custom enclosures, touchscreen integration, and all-in-one computer solutions.

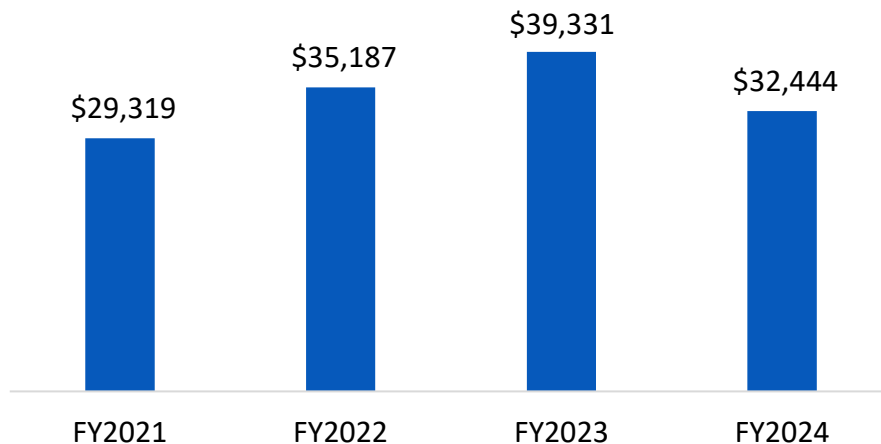
**2,000+ global blue-chip customers rely on Canvys to supply leading display solutions for their unique needs**

# Canvys FY2024 Update

## Canvys Highlights

- Continued high backlog as new orders received from both existing and first-time customers - although experiencing push out of orders given the economic environment
- Gross margin as a percentage of net sales improved to 33.8% in the full year FY2024, compared to 31.5% in FY2023, as a result of strategic initiatives and operational enhancements, enhancing efficiency and optimizing cost structure

## Canvys Sales (\$ in 000s)







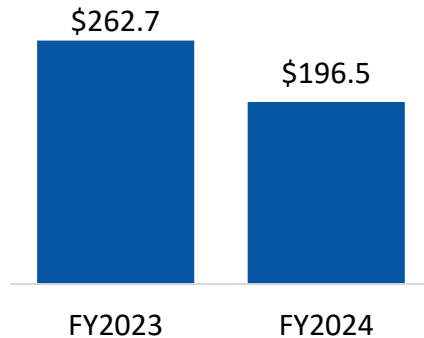
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# Financials

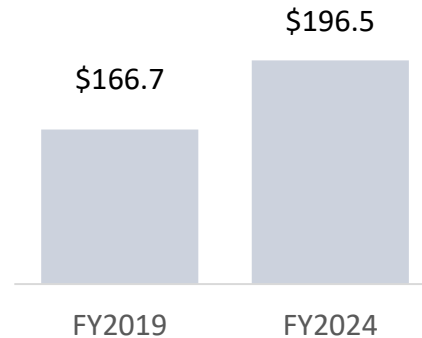


# FY2024 Financial Highlights

## Net Sales (\$ in millions)

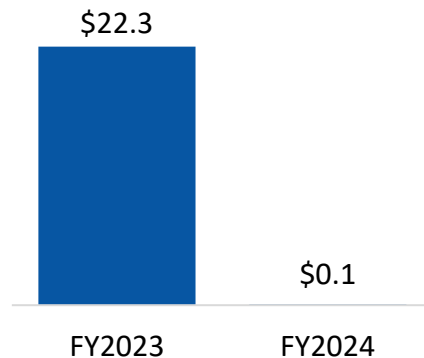


## 5-Year Growth CAGR Growth: 3.3%

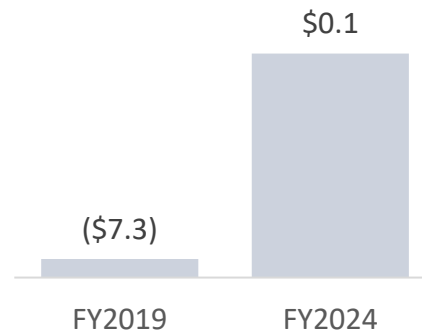


- As expected, Fiscal 2024 was a difficult year due to challenging conditions within the semiconductor wafer fab market and program delays across several Green Energy Solutions opportunities
- While it was a tough year for sales growth, the underlying business remains strong. In FY2024, key successes included achieving a significant milestone in the number of wind turbine generator modules sold, expansion of global customer base in the Green Energy Solutions group and the launch of starter modules used to replace lead acid batteries in locomotives.

## Net Income from Continuing Operations (\$ in millions)



## 5-Year Growth CAGR Growth: n/a



- While economic uncertainties and higher interest rates impacted sales and profitability during the year, the Company's focus remained on improving gross margins, reducing inventory levels, strengthening the balance sheet, and investing in long-term strategic growth opportunities

# Q4 FY2024 Balance Sheet and Cash Flow

- Strong balance sheet with no debt, and \$24.3 million in cash and cash equivalents
- No borrowings outstanding under \$30.0 million revolving line of credit
- Generated operating cashflow of \$6.5 million in FY2024 compared to a use of cash of \$8.2 million in FY2023
- Allocated \$0.8 million of capital in Q4 FY2024 and a total of \$3.4 million in FY2024 to support the Company's regular cash dividend
- The Company continues to invest in working capital to support its growth initiatives across its four business units
- Q4 FY2024 was the second consecutive quarter of decline in inventory and was the first year-over-year decline in inventory since fiscal 2017
- Capital expenditures were \$4.0 million in FY2024 primarily related to the Company's IT system

(\$s in 000s)	June 1, 2024	May 27, 2023
Cash and Cash Equivalents	\$24,263	\$24,981
Accounts Receivable	\$24,845	\$30,067
Inventories, net	\$110,149	\$110,402
Total Assets	\$192,445	\$198,048
Total Debt	\$0	\$0
Total Liabilities	\$34,493	\$38,728
Shareholders' Equity	\$157,952	\$159,320

# Capital Allocation

Debt free balance sheet allows for strategic deployment of capital

## Capital Allocation Strategies

### Focused on Supporting Long-Term Growth Opportunities

#### Investing in Infrastructure and IT Systems

- Invested \$4.8 million in facility renovations to support the growing demand for Green Energy Solutions (GES) products
- Continual enhancements of IT infrastructure to support global opportunities

#### Organic Growth Initiatives

- Since 2021, Richardson Electronics has invested over \$16 million in research & development, onboarding talented engineers, and enhancing its sales teams

#### Sustained Dividend

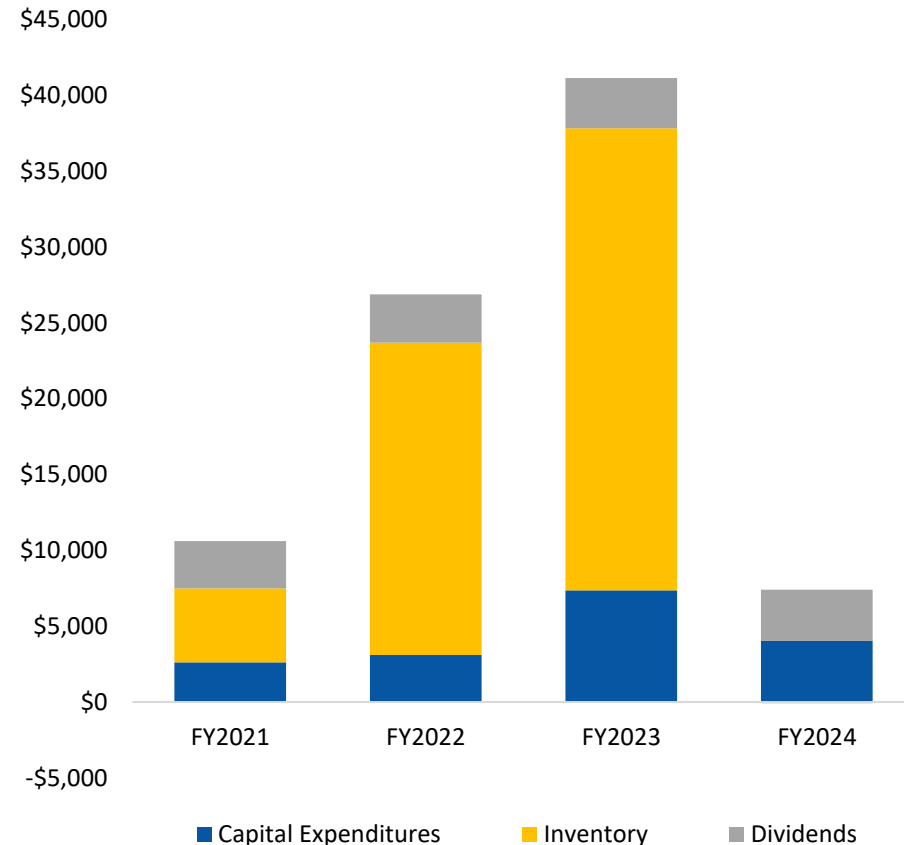
- The Company has paid out a regular quarterly cash dividend to common shareholders since 1990

#### Cash Flow Management

- Maintaining a healthy level on cash on the balance sheet
- Approximately 73% of cash on Richardson's balance sheet is spread out across 20 of the company's foreign subsidiaries
- Focused on converting inventory to cash in FY2024 and FY2025

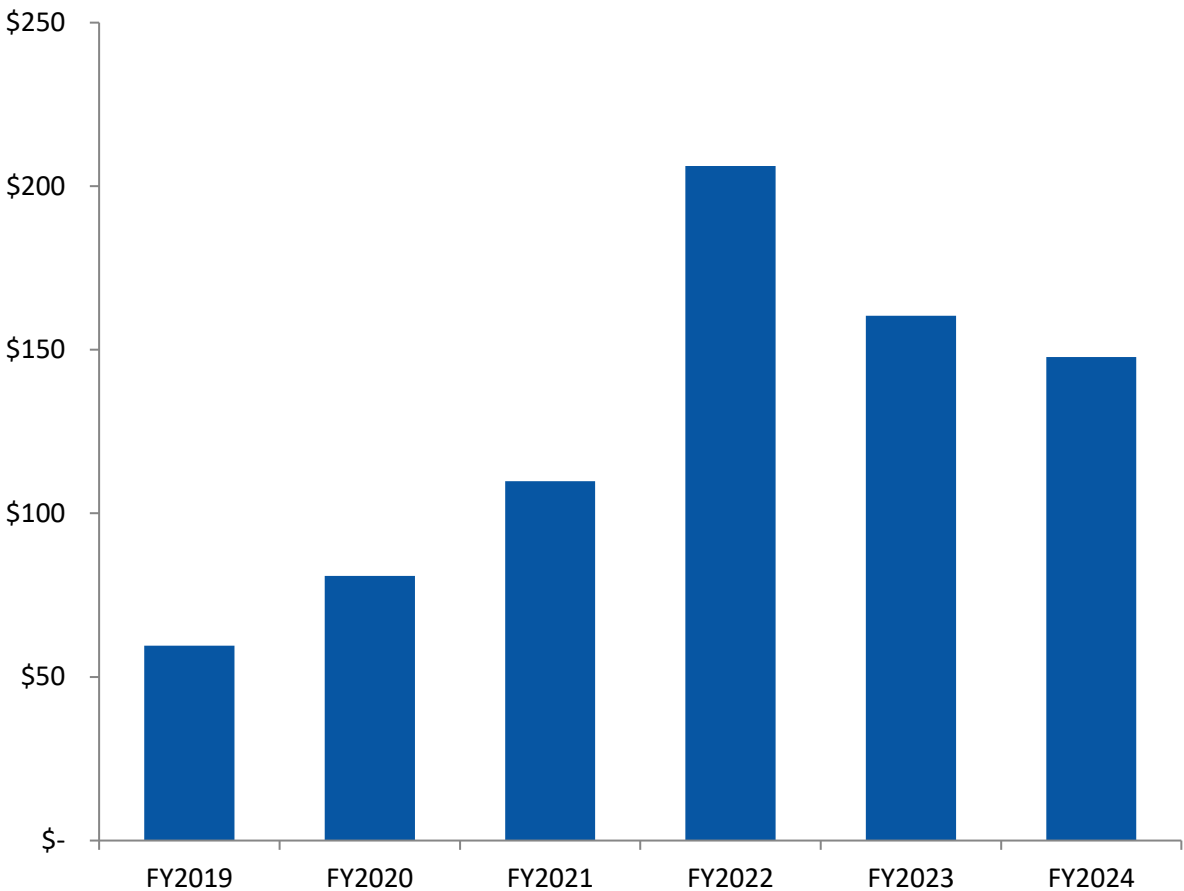
### Capital Allocation Priorities

*\$ in thousands*



\*FY2024 includes a \$0.1 million reduction in inventory

**Total Company Backlog**  
(\$ in millions)



- Total backlog at the end of Q4 FY2024 was \$147.8 million versus \$147.7 million at the end of Q3 FY2024, and \$59.5 million in FY2019.
- GES customer pipeline and number of opportunities continue to increase and demand growth in semiconductor wafer fab equipment market expected to accelerate in FY2025
- GES backlog of \$42.3 million at June 1, 2024, increased from March 2, 2024, by \$5.5 million



- We are more optimistic than ever about the future of Richardson Electronics
- We continue to gain market share with new customers, exclusive supplier agreements, new products and our growing list of patents
- Much of GES' business is project-based and timing is not always easy to predict, however we expect to start receiving new orders in the coming quarters
- There are certain macro and timing related variables that make it difficult to forecast beyond the next couple of quarters, but we expect our long-term growth strategies to produce sustainable annual growth
- Over \$900 billion in federal funding through the IRA and IIJA
- Near-term strategies are focused on improving gross margin, controlling expenses, managing inventory, and conserving cash, while continuing to support long-term growth opportunities
- We remain optimistic about our growth opportunities, based on customer demand for recently launched products, new technology partners, semiconductor wafer fab recovery and new engineered solutions
- Long-term strategy focused on diversifying sales to high-growth, higher-margin opportunities
  - Growing diversity of sales since the pandemic will help offset the impacts of challenging semiconductor wafer fab market
  - Significant opportunities associated with demand for our GES solutions to deliver sustainable annual sales growth
- It's not a matter of IF, but WHEN!



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# Appendix

Detailed Company Overview

## Strategic Business Unit Overview: GES

- Newest strategic business unit formed because of our exceptional growth in demand for green energy applications (sales previously including in PMT segment)
- Green solutions is key to our long-term growth strategy
- Rapidly expanding line of energy storage products for various green energy applications, and we plan to announce several new product launches in the second half of FY2024
- Capitalizing on emerging markets trends through the combination of key technology partners and our engineered solutions capabilities, while leveraging our existing global infrastructure

### Applications & Markets

- Wind
- Solar
- Power Management
- Synthetic diamond
- Electric Vehicles
- Hydrogen
- Battery Chargers for EV and Industrial

### Select Customers



## Product and Services Highlights

### Ultracapacitor Pitch Energy Modules for Wind Turbines



### UltraUPS for Industrial and IT Applications



### UltraGen 3000 for Remote Monitoring Capabilities



### Battery Modules and Superstructure for EV Locomotives



### Hybrid Starter Modules for Locomotives



### YJ1600 for Synthetic Diamond Industry



## Strategic Business Unit Overview: PMT

- The leading distributor of power grid and microwave tubes and related consumable parts (EDG Group)
- Power and Microwave Group (PMG) brings key semiconductor active and passive technologies for RF, wireless, and microwave niche applications
- Partnering with manufacturers of leading edge and disruptive technologies to drive the latest innovations for customers
- Organic growth focused on product line expansion, leveraging 20,000+ global customer relationships, and manufacturing growing resources and capabilities
- Additional growth opportunities supported by partnerships and potential acquisitions

### Applications

- SATCOM
- CO2 laser cutting
- Diagnostic imaging
- Dielectric/induction heating
- High energy transfer
- High voltage switching
- Plasma
- Power conversion
- Radar
- Microwave

### Markets

- 5G
- Aviation
- Broadcast
- Communications
- Industrial
- Marine
- Medical
- Military
- Semiconductor

## Product and Services Highlights

### EDG Products



### RF & Microwave Products



### Power Management Products





## Strategic Business Unit Overview: Healthcare

- Richardson Healthcare helps lower the cost of healthcare delivery with high value parts, upgrades and training solutions for hospitals and third-party service providers
- Healthcare manufactures, repairs, refurbishes and distributes high value replacement parts and equipment for the healthcare market
- Customers include hospitals, medical centers, asset management companies, independent service organizations and multi-vendor service providers

### Supported Brands

- Canon (Toshiba)
- Siemens
- Hologic
- Richardson Healthcare
- GE
- Philips

### Select Customers



## Product and Services Highlights

### CT Tubes



### Parts



### Refurbished CT Systems



### Training and Service



Strategic Business Unit Overview: Canvys

- Canvys develops custom display and All-In-One computer solutions for Original Equipment Manufacturers (OEMs). We evaluate each customer's unique needs and craft the right solution
- Key capabilities supported by local collaborative approach with customers, compliance with medical device regulation, and global logistics capabilities
- ISO certification provides products that comply with the most demanding quality standards throughout the entire delivery process
- Manufacturing fully customized displays that pair revolutionary technologies with solutions for individual customer needs

Applications

- Air Traffic Control
- Broadcast
- Dental Care Units
- Endoscopy Systems
- Food Industry
- Manufacturing
- Medical Navigation
- Ophthalmology
- Robotics
- Transportation
- Vending Machines / Kiosks

Select Customers

We sell to 7 of the top  
10 medical device  
companies worldwide.

Product Highlights

5" to 58" Custom Displays



All-in-One Computer Solutions

