

Richardson Electronics Fiscal Year 2023 LD Micro Main Event XVI

October 3-4, 2023

NASDAQ: RELL



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.



ENGINEERED SOLUTIONS



Richardson Electronics (NASDAQ: RELL) designs and manufactures nearly 60% of the products it sells for power, microwave, and imaging solutions to industries worldwide.

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

Key Facts & Figures

FY2023 Sales:
\$262.7 million
(+16.9% YoY)

FY2023 Net Income:
\$1.55 per diluted share
(vs. \$1.31 in FY2022)

Strong Balance Sheet:
**FY2023 Q4 cash and
cash equivalents of
\$25.0 million and
no debt**

Certified Experts
**ISO 9001:2015
ISO 13485: 2016
Certified**

480+ Employees
**Over half in sales,
engineering and product
management**

Global Customers
**Over 20,000 worldwide
OEM and end-user
customers**

Headquarters:
LaFox, Illinois

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



Our Business Units



Power & Microwave Technology (PMT)

- FY2023 Revenue: \$164.3 million
- 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)

- FY2023 Revenue: \$47.6 million
- 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

- FY2023 Revenue: \$11.4 million
- 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

- FY2023 Revenue: \$39.3 million
- 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**

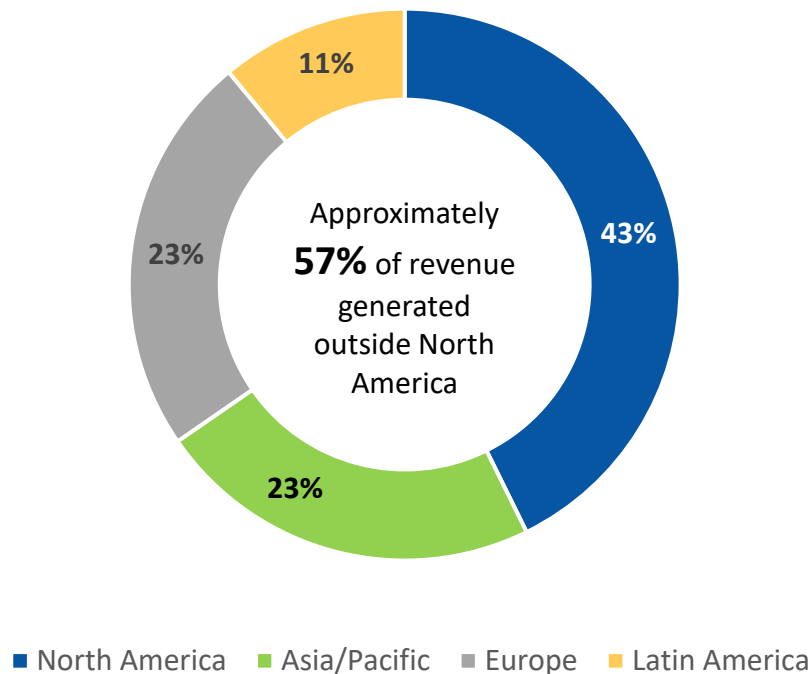


**All-In-One
Computer Solutions**



Local Service Supported Through Extensive Network of Over 60 Global Locations

FY2023 Full Year Sales by Geography



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
- ECCN items flagged for export control

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

GES Product Roadmap Supports Large, Fast-Growing, and Global Opportunities



High double-digit year-over-year
revenue growth target

Targeted 30-40% average GES gross
margin



**Pitch Energy
Modules
for Wind Turbines**



**Power Systems
For Materials
and Chemical
Markets**



**Power Modules
For EV-Electric
and Diesel
Locomotives**



**Power Control
Systems
for Wind Turbines**



**Superstructures for
EV-Electric
Locomotives**



**Utility Scale
Energy Storage
Solutions**

Applications In Production

Applications In Development

**GES's strategy is to provide specialized technical expertise and engineered solutions
using our core design engineering and manufacturing capabilities on a global basis**

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

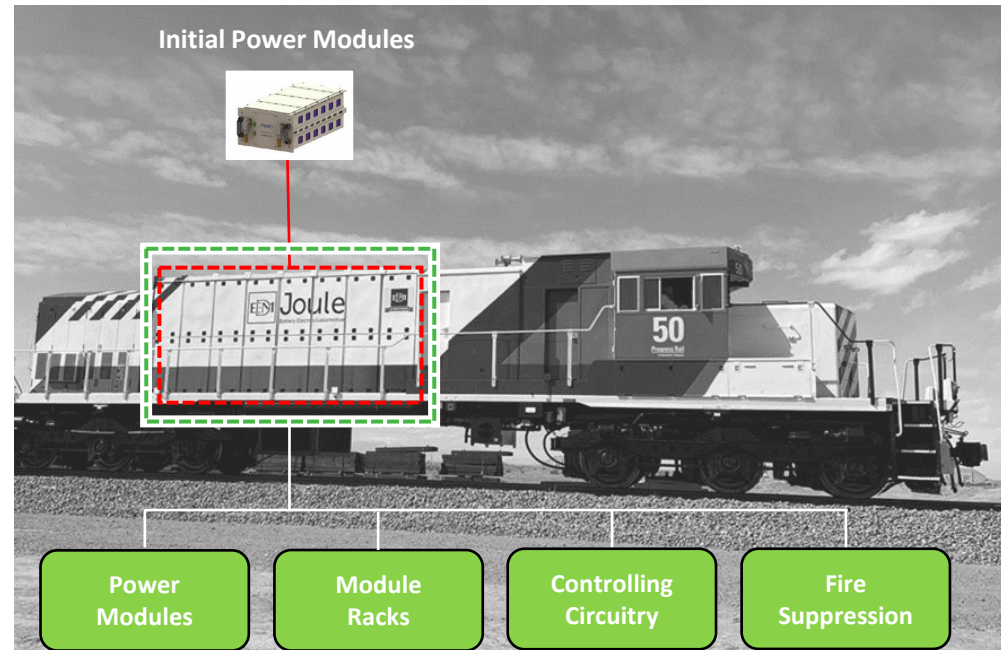
Richardson Electronics works with Progress Rail in the U.S. to offer Engineered Solutions beyond initial scope

4

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

5

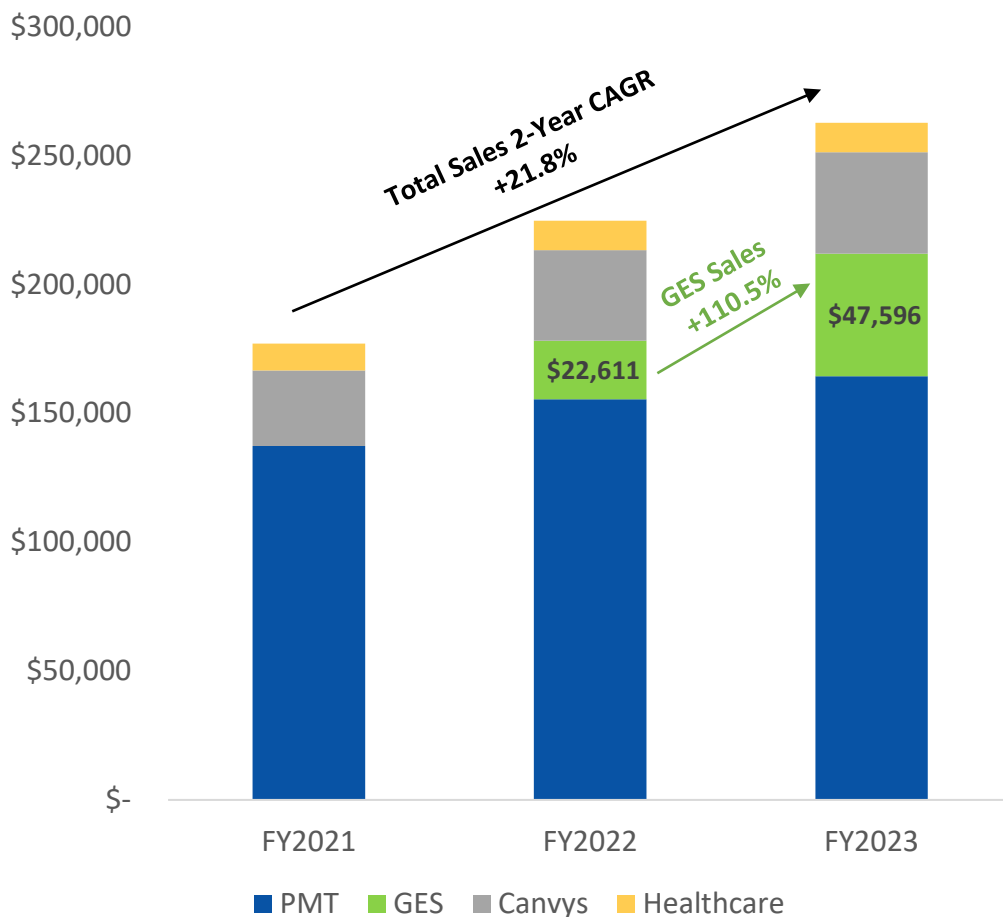
Product line expansion including battery start modules for trains and other applications.



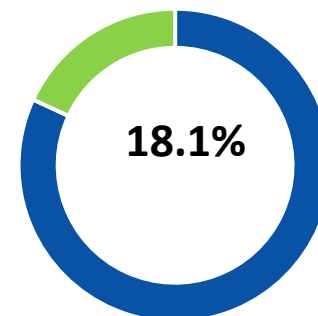
Relationship Expanded to Support Entire Superstructure
Content \$1M - \$4.5M/Train

Successful GES Strategy has Accelerated Sales Growth

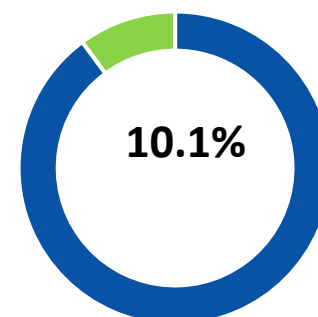
Components of Full Fiscal Year Sales Growth (000s)



FY2023 GES % of Total Sales



FY2022 GES % of Total Sales



Power & Microwave Technology (PMT) Opportunity

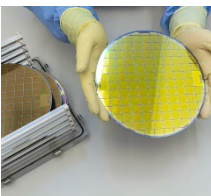
The leading provider of power and microwave components and related consumable parts

- **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



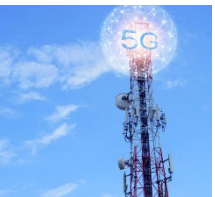
Power Management



Semiconductor



Defense



RF and Wireless Communications



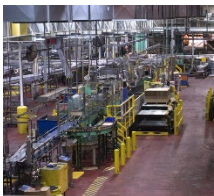
Marine



Avionics



Scientific & Medical



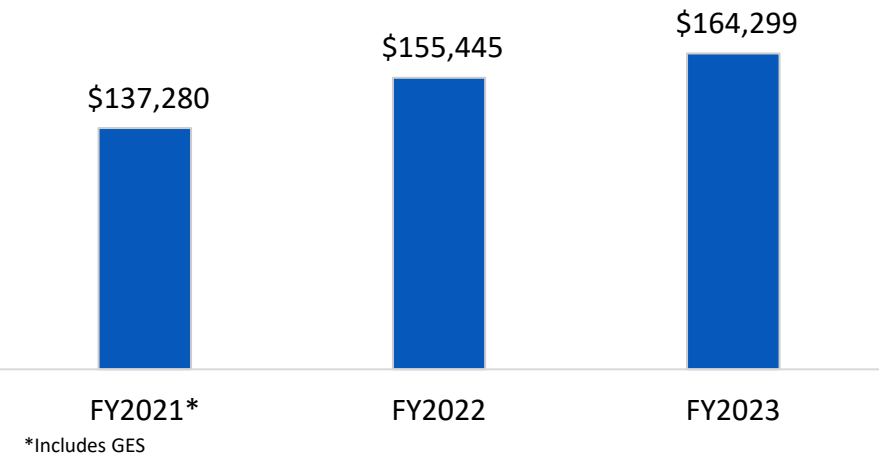
Industrial

PMT Highlights

- Added new technology partners, expanding our ability to supply, support, and create new opportunities
- Power & Microwave Group (PMG) continues to have excellent sales growth related to the RF/wireless infrastructure business
- High growth in demand for Electron Device Group (EDG)

PMT Sales (\$ in 000s)

Fiscal 2023 Sales Up 5.7% YoY



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

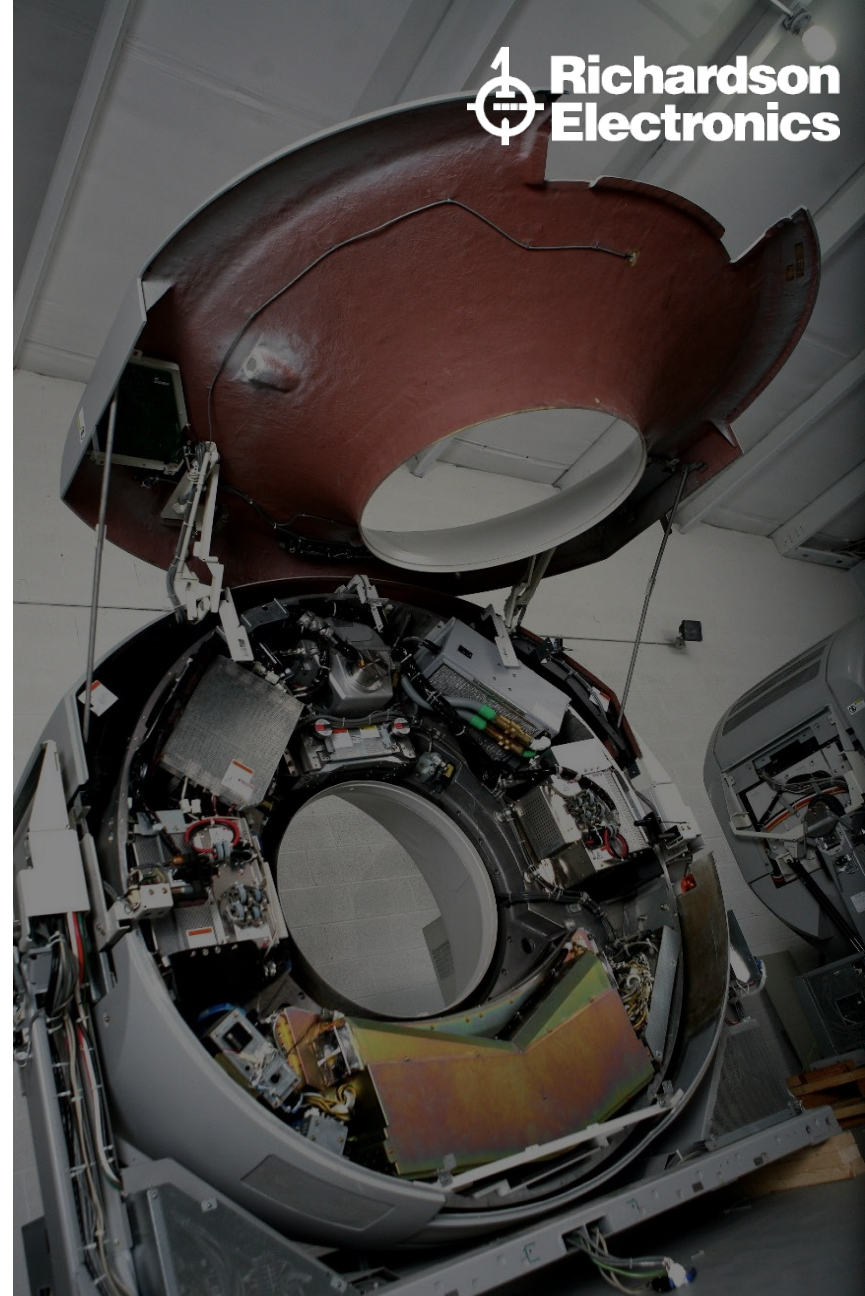
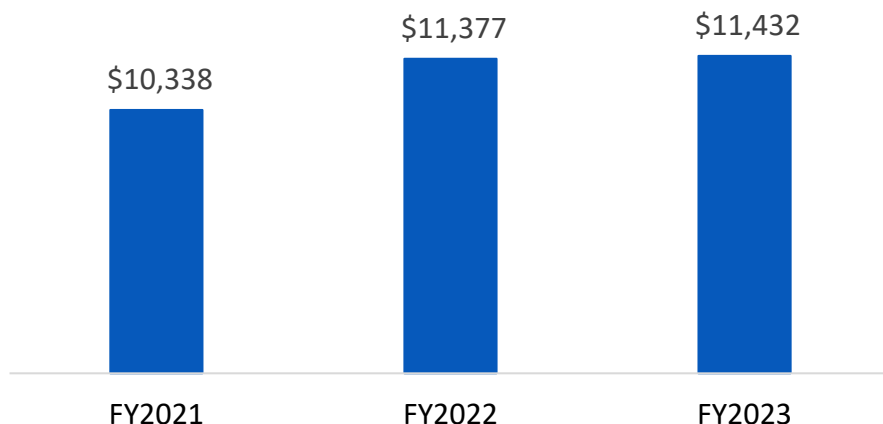
Healthcare Update

Healthcare Highlights

- Full year gross margins improved to 30.7% from 21.2% last year, due to productions variances stemming from enhanced operations and lower scrap costs.
- Tube reloading in Brazil and in the Americas creates new opportunities for Richardson Healthcare.
- The Straton Z tubes released into full production.
- The Siemens MX series will launch in CY 2023.
- Anticipated break even point in Q4 FY 2024.

Healthcare Sales (\$ in 000s)

Fiscal 2023 Sales Up 0.5% YoY



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

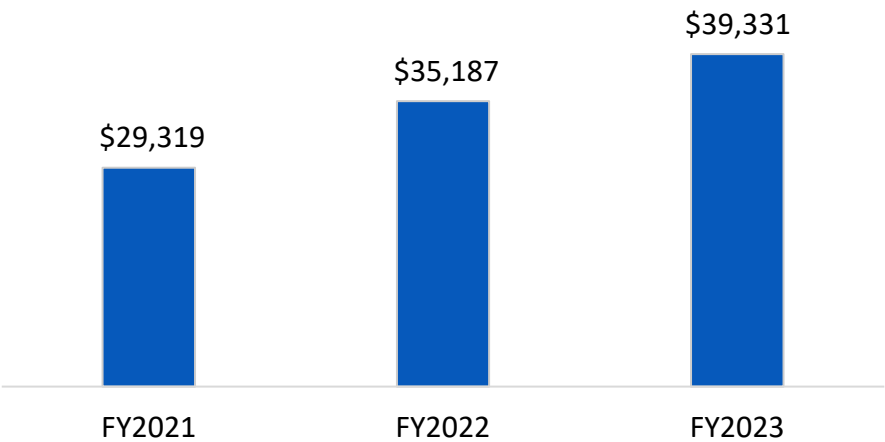
Canvys Update

Canvys Highlights

- Demand for blue-chip medical and industrial OEM systems driving growth
- The 11.8% year-over-year increase was due to an increased demand globally, and the continued addition of new customers and programs
- A number of projects in the engineering stage, well positioned for continued growth
- Healthy backlog, which we expect to support strong sales throughout fiscal 2024

Canvys Sales (\$ in 000s)

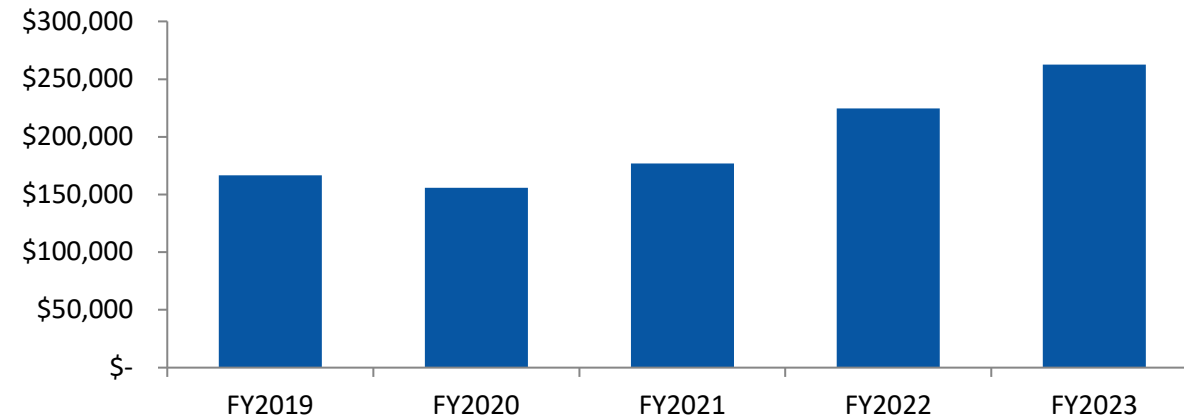
Fiscal 2023 Sales Up 11.8% YoY



Financial Results

Total Annual Sales

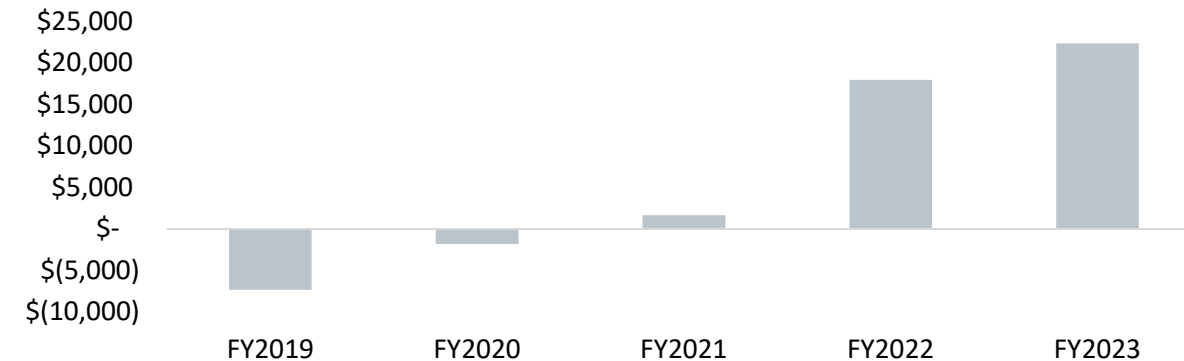
(\$ in thousands)



- Net sales for full year FY2023 increased to \$262.7 million, up 16.9% compared to net sales of \$224.6 million in the same period last year, due to positive year-over-year growth in each of the business segments.

Annual GAAP Net Income

(\$ in thousands)



- Full year FY2023 Net income improved 24.6% on a year-over-year basis as a result of higher sales, improved operating margin due to controlled operating expenses
- Operating income was \$25.0 million, or 9.5% of net sales for full year FY2023 as compared to \$16.0 million or 7.1% of net sales in the same period last year.

FY2023 Q4 Balance Sheet and Cash Flow

- Strong balance sheet with no debt, and \$25.0 million in cash and cash equivalents
- Allocated \$3.3 million of capital in FY2023 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
- Most of the inventory increase was to support the growth in GES and other key growth initiatives and protect market position; Company focused on slowing inventory growth and improving turns
- Capital expenditures were \$7.4 million in FY2023 primarily related to investments in the Company's manufacturing business, and facility renovation

(\$s in 000s)	May 27, 2023	May 28, 2022
Cash and Cash Equivalents and Investments	\$24,981	\$40,495
Accounts Receivable	\$30,067	\$29,878
Inventories, net	\$110,402	\$80,390
Total Assets	\$198,048	\$179,819
Total Debt	\$0	\$0
Total Liabilities	\$38,728	\$43,972
Shareholders' Equity	\$159,320	\$135,847

- 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
- We expect softer sales in the first half of fiscal 2024 due to timing of project-based orders and fluid economic environment
- 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
- Near-term strategies are focused on supporting gross margin, controlling expenses, managing inventory, and conserving cash, while continuing to support long-term growth opportunities
- We remain optimistic about the back half of fiscal year 2024 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, high-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!



A Legacy of Engineered Solutions.
A Future of Innovation.