

# LD Micro Invitational XII

June 7-9, 2022

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.



# ENGINEERED SOLUTIONS



Richardson Electronics (Nasdaq: RELL) designs and manufactures more than 60% 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



# Key Facts & Figures

FY2021 Sales:  
**\$176.9 million**

FY2022 Prelim Sales/  
Backlog:  
**Sales: \$222 million -  
\$226 million**  
**Backlog: \$206.2 million**

Q3 Strong Balance  
Sheet:  
**\$39.1 million in cash and  
investments, no debt**

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

450+ 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)**

- TTM Revenue: \$167.6 million
- Power grid and microwave tubes (EDG)
- Power management for Alternative Energy, 5G (PMG; started in 2014)
- In-house manufacturing and partnering with leading technology suppliers
- Global engineering and design support
- Key supplier to semiconductor industry




**Healthcare**

- TTM Revenue: \$11.3 million
- Started in 2015; \$35M+ invested
- 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**

- TTM Revenue: \$34.6 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**



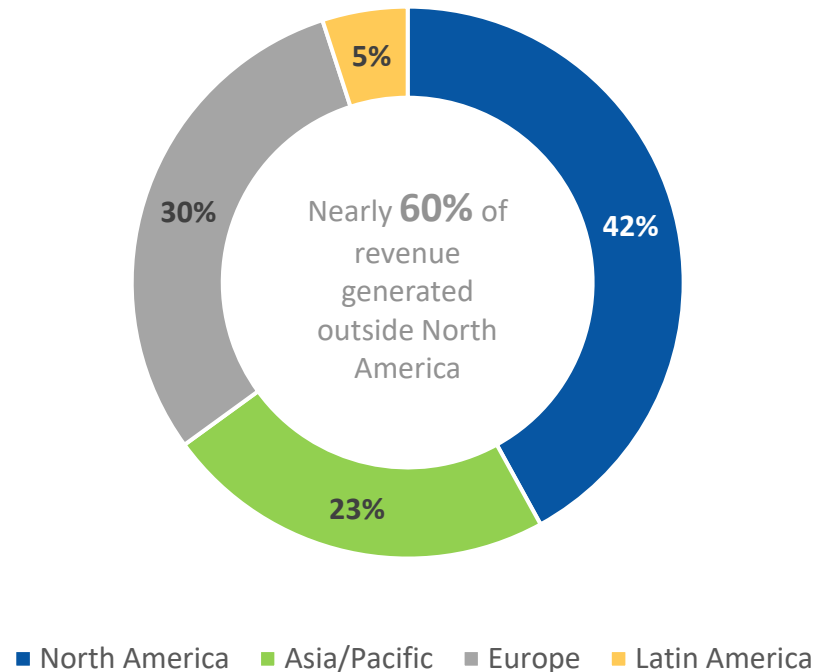
**All-In-One Computer Solutions**





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

## FY21 Sales by Geography



## Sophisticated Global Infrastructure

- More than 60 sales offices & stocking locations
- Global field engineering support including 75 RF and 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

# 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



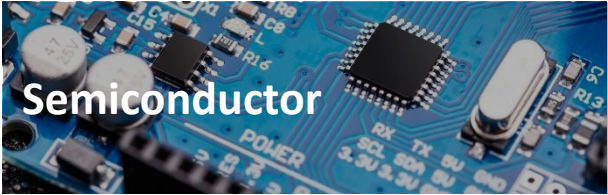


Global footprint supports customers and maintains strong strategic partnerships with leading manufacturers

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



# Growth Opportunities and Focus:

Richardson's Strategy Aligned with Compelling Market Dynamics

Market	Market Driver / Update	Richardson Opportunity
 <p><b>Semiconductor</b></p>	<ul style="list-style-type: none"> <li>Semiconductor capex cycle expected to remain strong over the near-term</li> <li>LAM Research, a RELL semiconductor customer, expects demand to drive another year of capex spending growth in 2022</li> </ul>	<ul style="list-style-type: none"> <li>Products support the global semiconductor wafer fab equipment market</li> <li>+50% of sales relate to deposition which is used for replacement of tools and existing wafer fabs</li> </ul>
 <p><b>Manufacturing</b></p>	<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 915 megahertz magnetrons up to 100 kilowatts are being used for producing hydrogen</li> </ul>
 <p><b>Power Management/ Alternative Energy</b></p>	<ul style="list-style-type: none"> <li>Growing opportunities to transition legacy lead acid battery applications to longer-lasting, more environmentally friendly, technologies</li> </ul>	<ul style="list-style-type: none"> <li>Wind turbine market with ultracapacitor battery modules</li> <li>Lithium-ion phosphate battery modules for electric train engines</li> <li>Wireless base station, and critical facility markets</li> </ul>
 <p><b>Healthcare</b></p>	<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>

# Power & Microwave Technology (PMT) Opportunity

The leading distributor of power grid and microwave tubes and related consumable parts

- **Electron Device Group (EDG)** which includes legacy tube business and semiconductor wafer fab
- **Power and Microwave Group (PMG)** which includes discrete semiconductor components and new alternative power solutions
- Global provider of Engineered Solutions focusing on industrial tube manufacturing, microwave generators, power supplies and customer specific parts 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



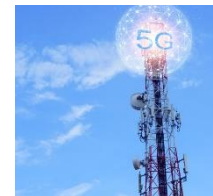
**Renewable Energy**



**Power Conversion**



**Defense**



**Communications**



**Marine**



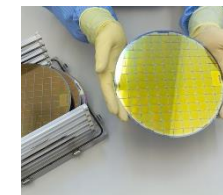
**Avionics**



**Scientific & Medical**



**Industrial**



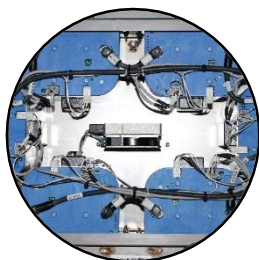
**Semiconductor**

# ULTRA3000® Growth Opportunity



## Years of experience utilizing and distributing ultracapacitor technologies

- Created specifically for replacement market within wind turbine generators (WTG)
- Patented product with more than 20 protected embodiments



## Significant benefits to customers

- Estimated lifetime of 15+ years
- Direct replacement for acid/lead batteries and no hazardous chemicals
- Enhances reliability of PEM with turbine blades



## Massive opportunity

- Each turbine blade has power requirements
- Global TAM for GE WTG's alone is \$370 million
- Currently working on PEM systems for other WTG



## Rapid adoption

- Product from conception to > \$10 million in shipments and backorders in < 14 months

Auxiliary power is needed to control the pitch and rotation of wind turbine blades. Richardson Electronics ULTRA3000® Pitch Energy Module (PEM) is an ultracapacitor-based plug-and-play replacement for batteries within wind turbine pitch systems.



# BSE Gen-Start Growth Opportunity



**Leveraging ultracapacitor expertise to create replacement modules for lead acid batteries in generators**

- Patent-pending technology
- Product launch expected in CY22



**Initial application focused on wireless base stations**

- In 2019 there were 395,562 cell sites, approximately 59,000 or 15% have existing generators
- Major wireless carriers expect to add 25,000-30,000 base stations in North America between 2021-2025
- Target customers such as AT&T, T-Mobile, Verizon



**Critical facilities support additional applications**

- U.S. Hospitals total 6,090
- U.S. Fire Stations/Municipalities total 58,150
- May use more than one per site



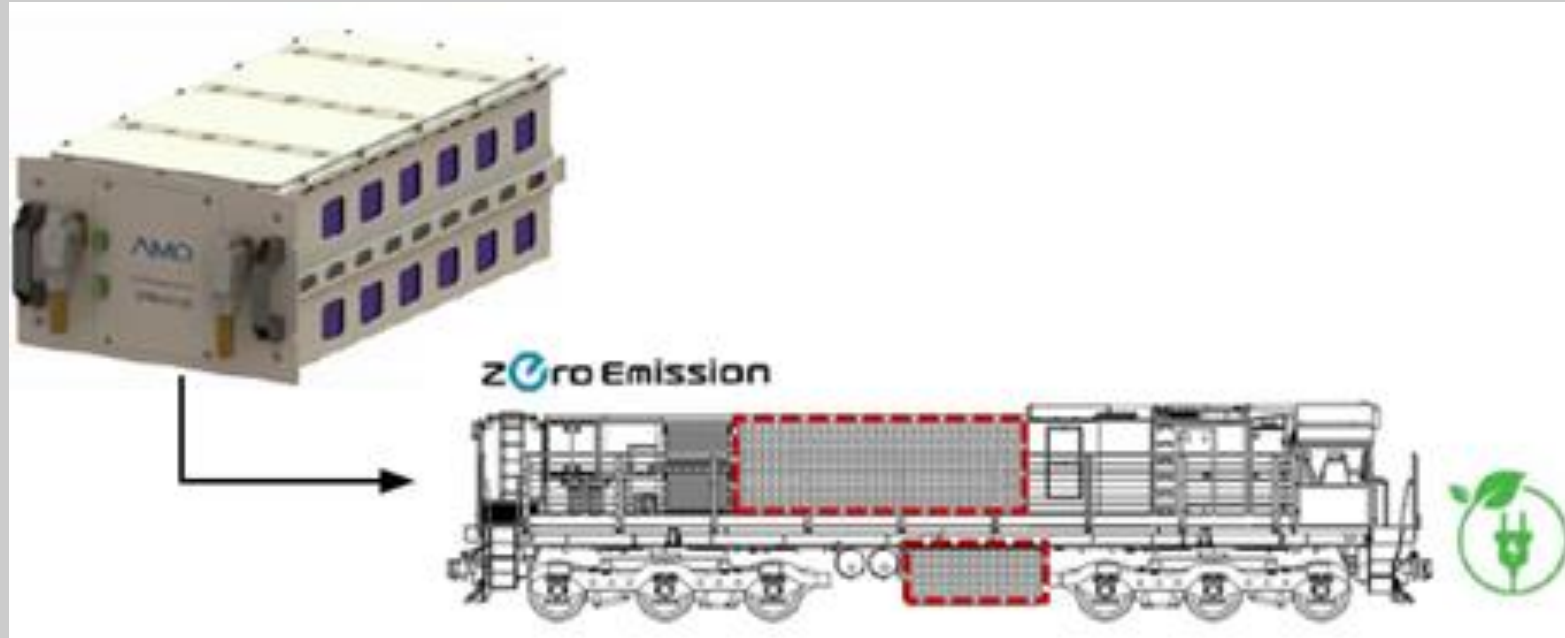
**Large initial opportunities**

- SAM - Wireless Base Stations \$42 million
- SAM - Critical Facilities \$23 million
- Long-term TAM ~\$250 million





# New Product Launch: Lithium Iron Phosphate Battery Modules For EV-Electric Locomotives



Designed, manufactured  
and supported in  
LaFox, IL

**"Green" Benefits:**  
*Replaces diesel electric  
engine*  
*Fuel saving and reducing  
emissions*  
*Silent and less maintenance*

Design wins with  
Progress Rail/Caterpillar

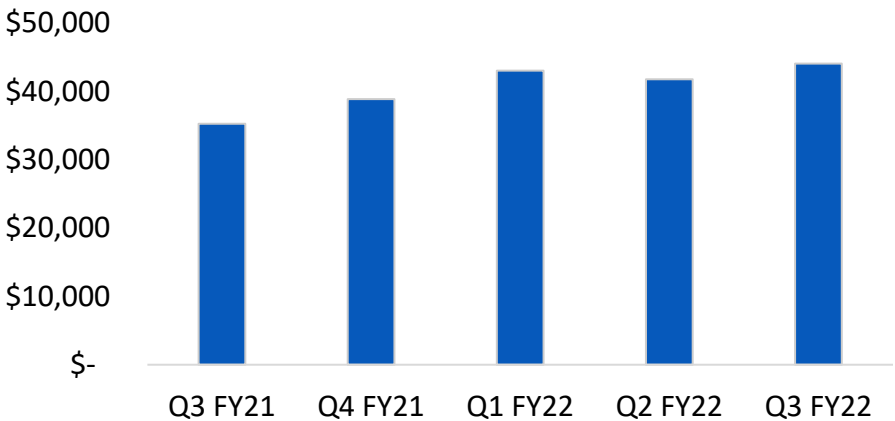
Multi-million dollar  
order booked February  
2022

## PMT Highlights

- High growth in demand for Electron Device Group (EDG); new applications (diamonds, hydrogen as fuel source, sustainable building products)
- Semiconductor wafer fab equipment benefitting from market growth; chip shortages create new wafer fabrication installations
- Power & Microwave Group (PMG) continues to have excellent sales growth related to 5G and alternative energy

## PMT Sales (\$ in 000s)

*Third Quarter Sales Up 25.0% 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 2022/2023.

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



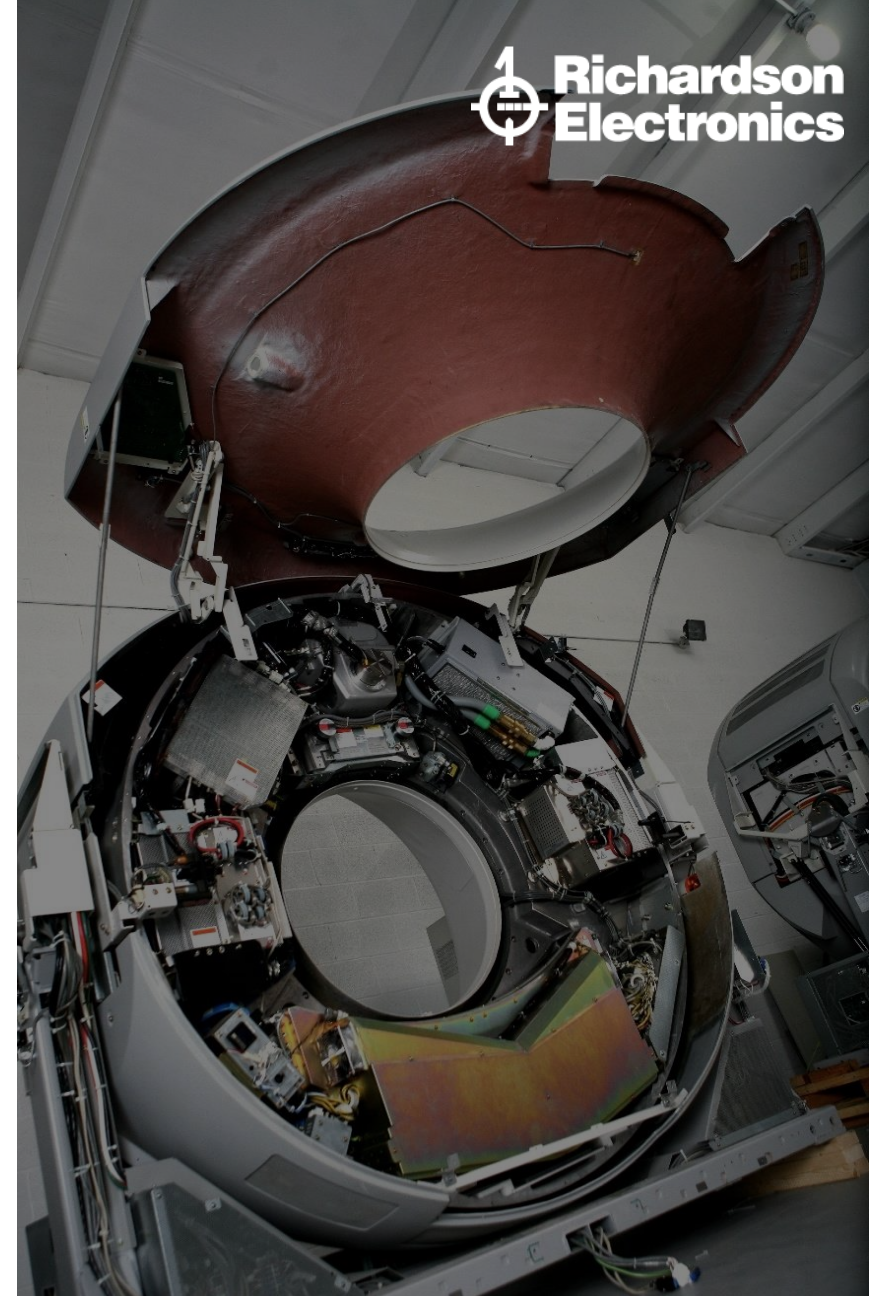
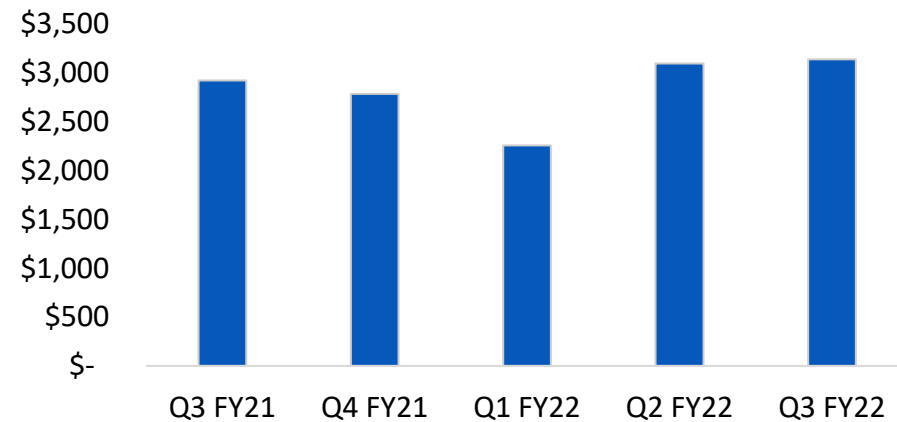
# Healthcare Update

## Healthcare Highlights

- Richardson Healthcare sold a record number of tubes during Q3 FY22, led by increased tube sales in China.
- Additional tubes will drive revenue growth and margin improvement as factory utilization rate improves
- Continued to expand the number of countries in which Richardson's tubes are registered

## Healthcare Sales (\$ in 000s)

*Third Quarter Sales Up 7.4% 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 82", 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**



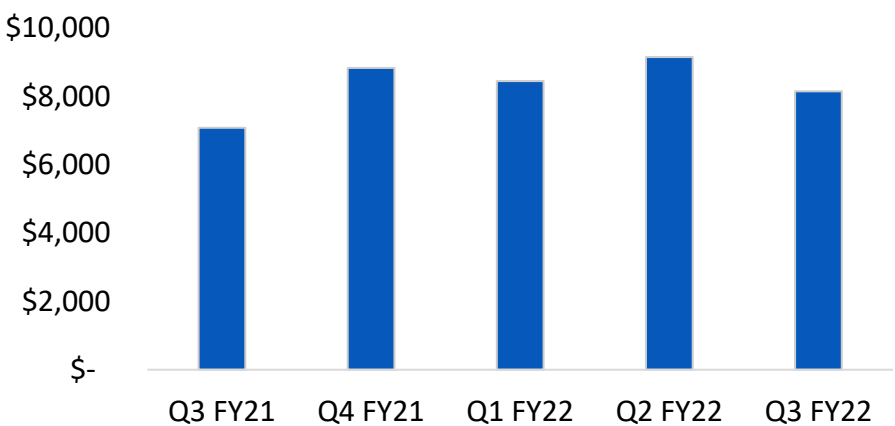
# Canvys Update

## Canvys Highlights

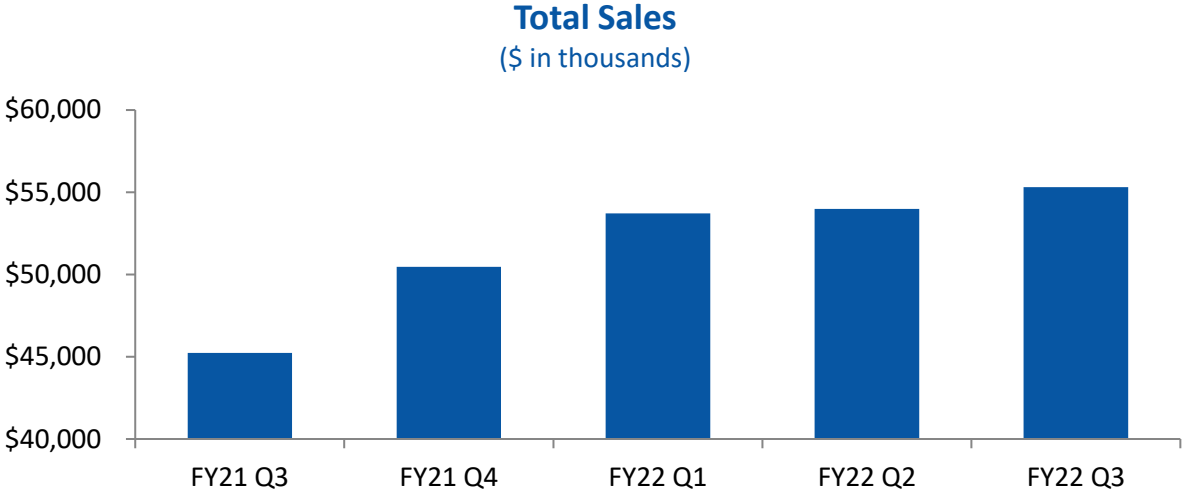
- Demand for blue-chip medical and industrial OEM systems driving growth
- Post-Covid recovery in Europe contributing to FY22 growth
- Ended Q3 FY22 with a record \$52.4 million backlog as customers ensure inventory availability amidst supply chain challenges
- Canvys’ backlog increased 19.4% from this year’s second quarter, and is up 66.3% on a year-over-year basis

## Canvys Sales (\$ in 000s)

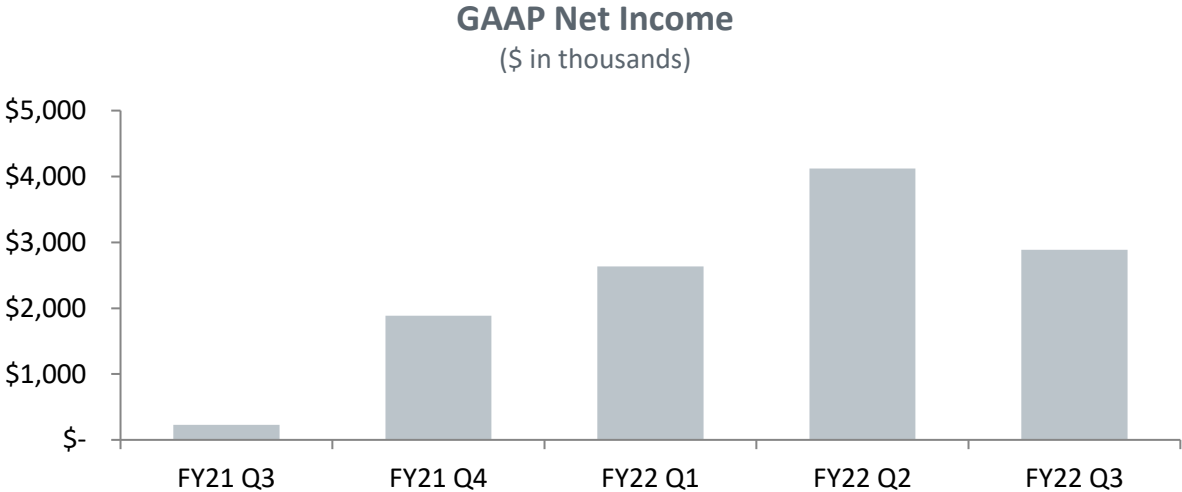
*Second Quarter Sales Up 15.0% YoY*



# Financial Results



- Net sales for the third quarter of fiscal 2022 increased to \$55.3 million, up 22.3% compared to net sales of \$45.2 million in the prior year’s third quarter due to higher net sales across all three business units.



- Net income improved significantly on a year-over-year basis as a result of higher sales and lower SG&A expenses.
- Net income was \$2.9 million or 5.2% of net sales for the third quarter of fiscal 2022 as compared to a net income of \$0.2 million or 0.5% of net sales in the third quarter of fiscal 2021.

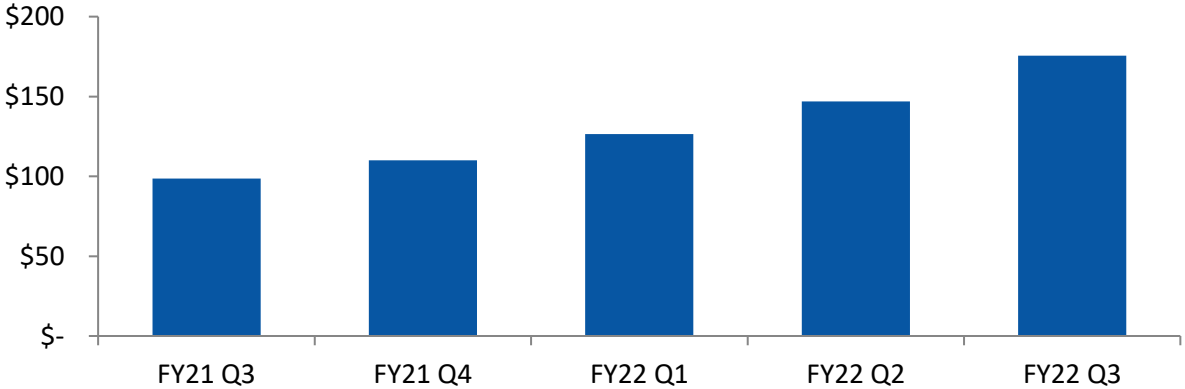
# FY2022 Q3 Balance Sheet and Cash Flow

- Cash used in the third quarter of fiscal year 2022 resulted primarily from an increase in working capital that was necessary to support the significant year-over-year sales growth experienced across the three business units.
- A large portion of the inventory growth relates to components needed to fulfill orders on hand for the ULTRA3000 and other long lead time parts for PMT.
- Capital expenditures were \$0.6 million in the third quarter of fiscal 2022 primarily related to investments in the Company's Healthcare and manufacturing businesses and IT System.

(\$s in 000s)	Feb. 26, 2022	May 29, 2021
Cash and cash equivalents	\$39,147	\$43,316
Accounts Receivable	\$31,605	\$25,096
Inventories, net	\$73,673	\$63,508
Total Assets	\$170,686	\$156,753
Total Debt	\$0	\$0
Total Liabilities	\$41,075	\$35,193
Shareholders' Equity	\$129,611	\$121,560

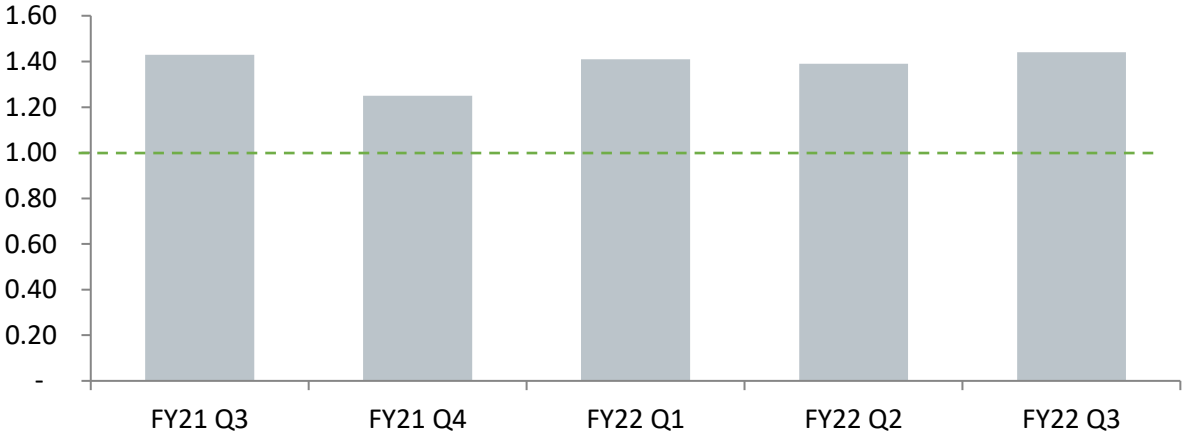


**Total Company Backlog**  
(\$ in millions)



- Backlog at the end of Q4FY22 was \$175.6 million up 19.5% over the second quarter.
- PMT’s backlog increased across numerous product lines, most notably in power management, semiconductor wafer fab, and magnetrons.
- Canvys backlog at an all-time high.

**Total Company Book-to-Bill**



- Each of RELL’s three business units had higher backlog, driven by strong bookings growth.
- Six consecutive quarters of a book-to-bill ratio over 1.0



A Legacy of Engineered Solutions.  
A Future of Innovation.

## Appendix

Detailed Company Overview

# Power and Microwave Technologies (“PMT”)

## 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 and passive technologies for power 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

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

### Markets

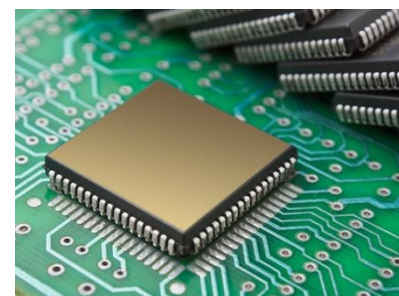
- 5G
- Alternative energy
- Aviation
- Broadcast
- Communications
- Industrial
- Marine
- Medical
- Military
- Semiconductor

## 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

## Product and Services Highlights

### CT Tubes



### Parts



### Supported Brands

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

### Select Customers



### 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

Product Highlights

5" to 82" Custom Displays



Applications

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

Select Customers



All-in-One Computer Solutions

