# **A Richardson Electronics**

# Corporate Overview 2020-2021

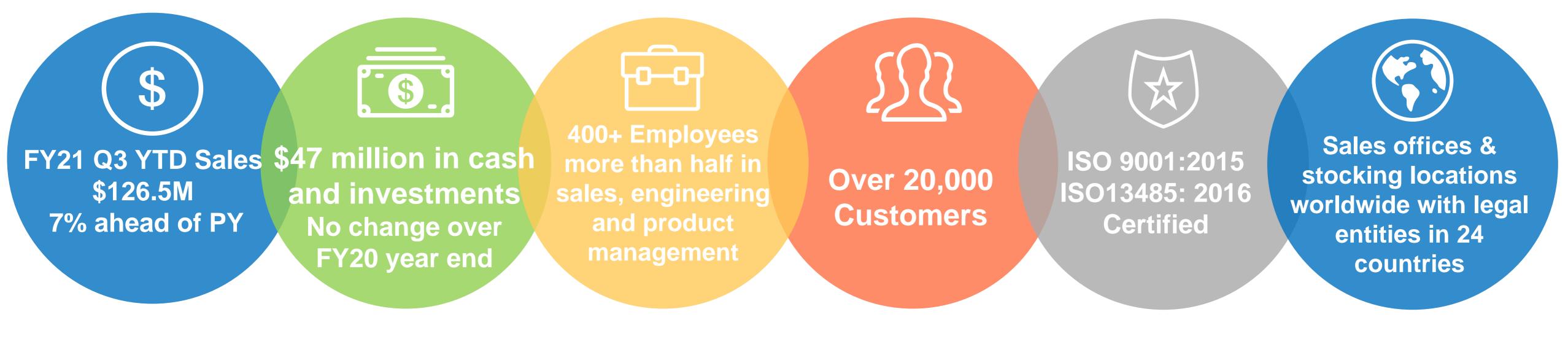
Interim Update 6/1/2021



# Q3 FY21 YTD Key Highlights



# **Q3 FY21 YTD Facts & Figures**



NASDAQ: RELL

Strong **Balance Sheet**  Headquarters in LaFox, IL

Strong sales growth, income improvement and cash flow in spite of ongoing effects of COVID-19

Worldwide in both **OEM and End-user** Markets

Certified Experts

We are Global



# FY21 Business Update

# **Power & Microwave Technology**

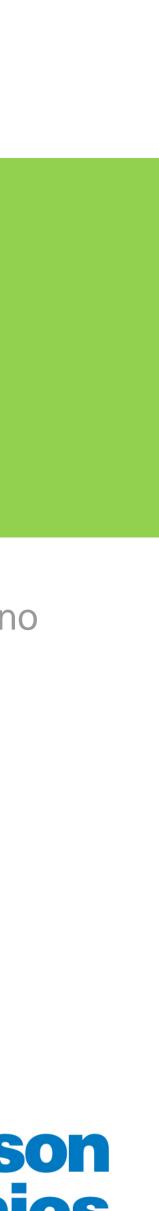


- New product launch for wind turbine market: ULTRA3000<sup>®</sup>; ultracapacitor
   battery module
- Partnership with Battery Street Energy (BSE) for ultracapacitor battery
   replacement for generators
- Continued growth in PMG; 5G
- Semiconductor market strength driving
  increased sales of REL-manufactured
  products

- Unit Sales of ALTA750<sup>®</sup>, first third party
  replacement tube for Canon CT scanners,
  increasing quarter over quarter; new record
  highs
- ALTA750G, second CT tube for newer
  Canon CT scanners, to launch late
  Summer/early Fall 2021
- Siemens repaired CT replacement tube
  program, one of the top two CT Scanner
  - OEMs, to launch 2022

- COVID delayed some shipments; no lost business
- o Strong sales in North America
- o Strong backlog going into FY22





# New Product Launch: **ULTRA3000®**



- - North America SAM is \$85M

• ULTRA3000<sup>®</sup> was created to go after the ultracapacitor battery replacement market within wind turbine generators (WTG)

In under 14 months, we took a product from conception to working beta modules to over \$10M in shipments and backorders

ULTRA3000<sup>®</sup> is a direct replacement for acid/lead batteries within the GE 20 and 30 Nm pitch systems

 The ULTRA3000<sup>®</sup> significantly enhances the reliability of the electric pitch control system for the wind turbine blades

• With the success of ULTRA3000<sup>®</sup> REL is continuing to develop new products within niche energy storage markets

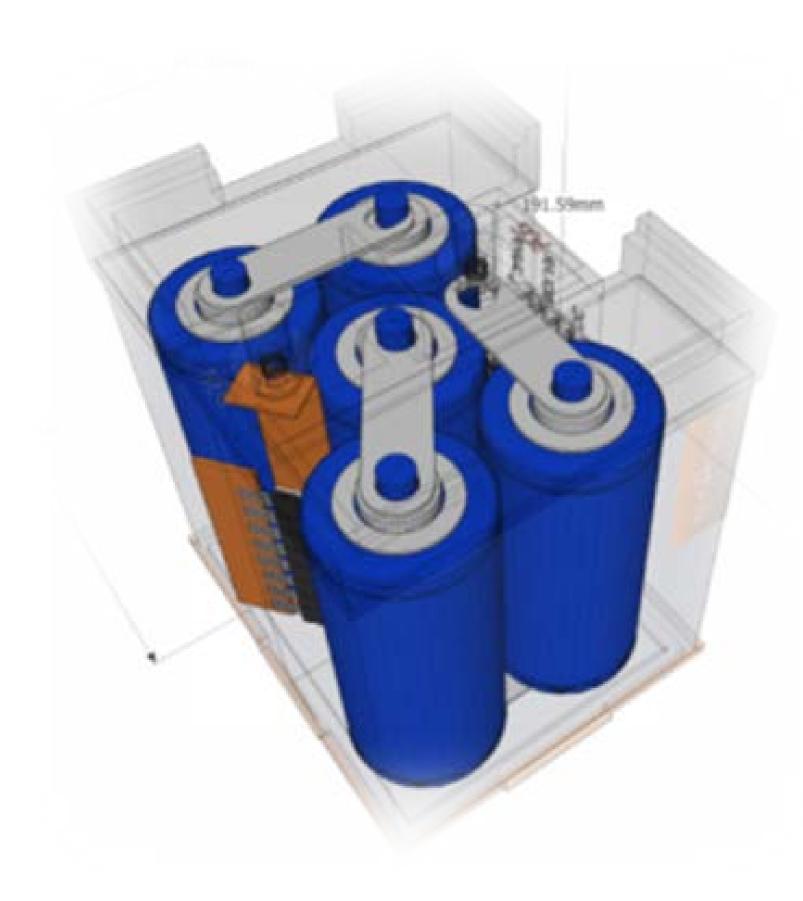
Patent-pending technology

Configuration: 12-18 modules per turbine

Market potential

- Current design is for GE wind turbines (GE has estimated 60%) market share)
- The replacement of batteries with ultracapacitors in WTG's follows the expiration of GE's warranty
- The warranty period for a GE WTG is typically two (2) years

# BSE Gen-Start Market Opportunity



- Patent-pending technology
- REL licensed **exclusively** for design support, manufacturing, and global sales and marketing
  - Aligns with Power Management and Healthcare teams
- Product to be launched in Q2/Q3 FY22
- Market launch and focus will be on wireless providers and critical facilities
  - Wireless Infrastructure (Cellular Base Stations Service) Providers)

### BSE Gen-Start is an ultracapacitor based replacement module for lead acid batteries in generators

• Uses REL experienced sales and marketing infrastructure

- 2019: 395,562 cell sites, 15% (approx. 59k) with existing generators
- AT&T/Verizon/T-Mobile (Sprint) and others expect to add 25-30k base stations in North America between 2021-2025
- Critical Facilities
  - U.S. Hospitals total 6,090
  - U.S. Fire Stations/Municipalities total 58,150
  - May use more than one per site
- SAM Wireless Base Stations \$42M
- SAM Critical Facilities \$23M

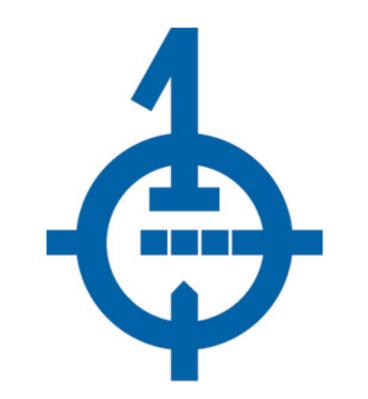
# Richardson Healthcare **CT Tube Programs**

Compatible with OEM platforms Form, Fit, Function Replacements ALTA750D launched May 2018 ALTA750G launch Summer/early Fall 2021 Siemens Repaired CT Tube Program 2022













# **Detailed FY20 Company Overview**



# Richardson

# **ENGINEERED SOLUTIONS**

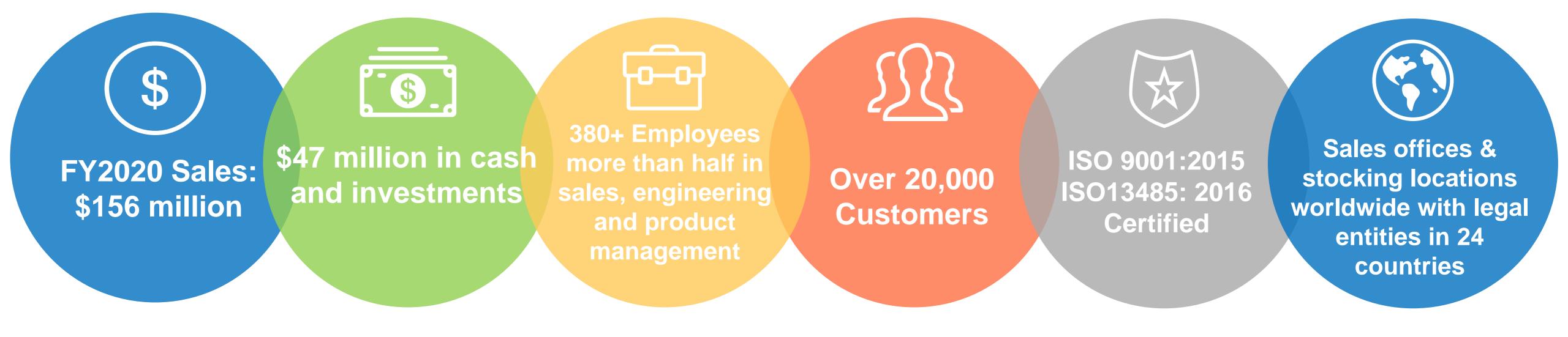
### We provide power, microwave, and imaging solutions to industries worldwide.

The Company's strategy is to provide specialized technical expertise and "engineered solutions" based on our core engineering and manufacturing capabilities. Richardson provides solutions and adds value through design-in support, system integration, prototype design and manufacturing, testing, logistics, and aftermarket technical service and repair through its global infrastructure.





# FY20 Year End Facts & Figures



NASDAQ: RELL Strong Balance Sheet Headquarters in LaFox, IL Worldwide in both OEM and End-user Markets

Certified Experts

We are Global



# **Strategic Direction:**

- Organic Growth 0
  - Product line expansion
  - Leverage relationships with 20,000 customers globally Ο
  - Expansion of manufacturing resources and capabilities
- Formation of New Partnerships
- Acquisitions

"Our highest return on investment will be achieved by leveraging the power of our global infrastructure and capitalizing on the strength of our customer relationships."

Become a leading healthcare and power and microwave technology company with long term sales and earnings growth potential.

— Edward J. Richardson, Chairman, CEO



# **Our Business Units**





- Power grid and microwave tubes
- Power management for Alternative Ο Energy
- New GaN and SiC technology
- o In-house manufacturing and partnering with leading technology suppliers
- Global engineering and design support

- Diagnostic imaging replacement parts Ο
- CT service training and technical support
- CT and MRI replacement tubes

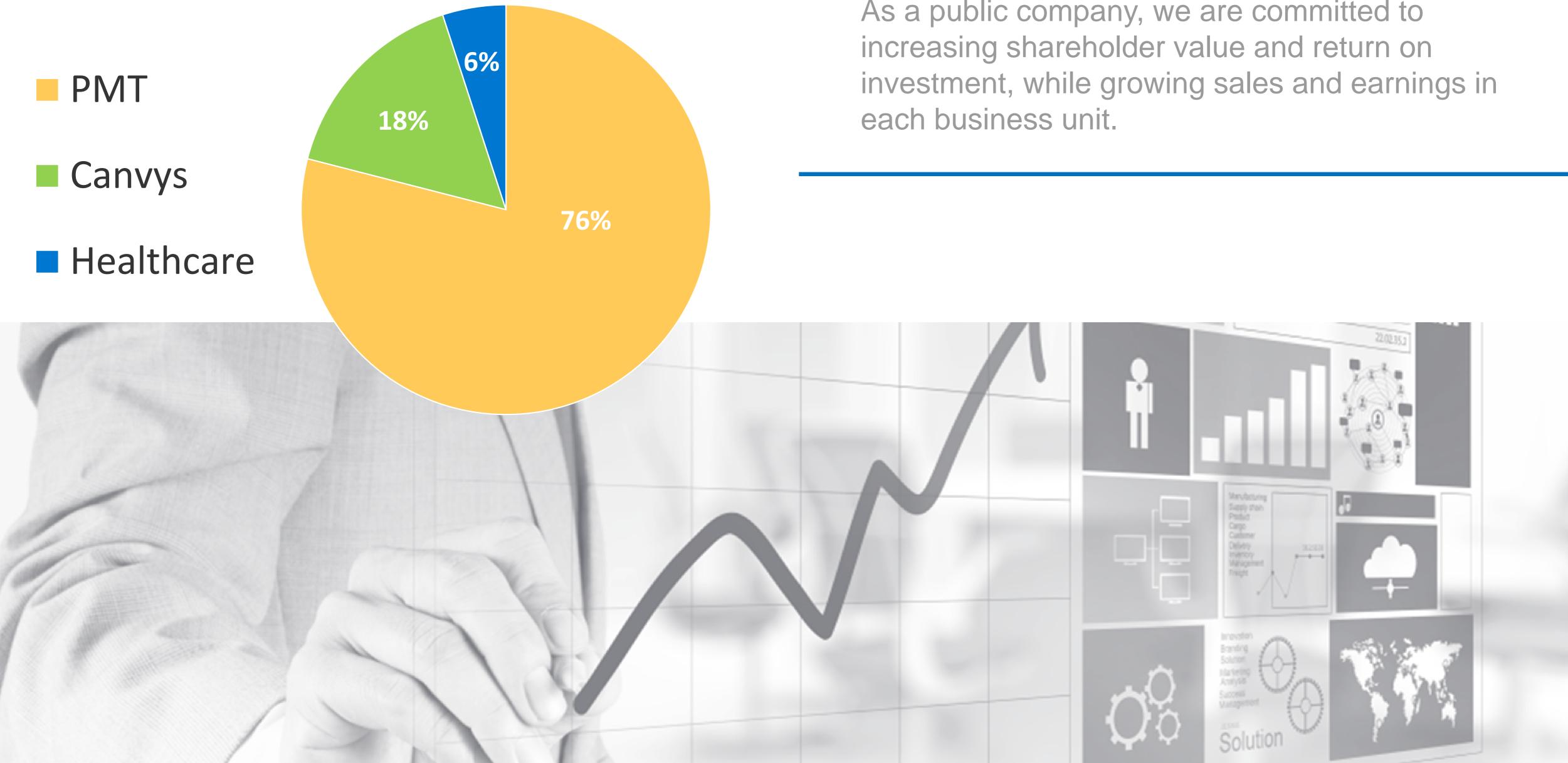
# Healthcare



- Custom display solutions Ο
- All-in-one computer display solutions
- Engineering design and support



# FY20 Sales By Business Unit



As a public company, we are committed to



We manufacture and distribute the highest quality products in the markets we serve.

Our employees are dedicated to customer service. Local languages, local currencies, local people.

# **Our Value Propositions**

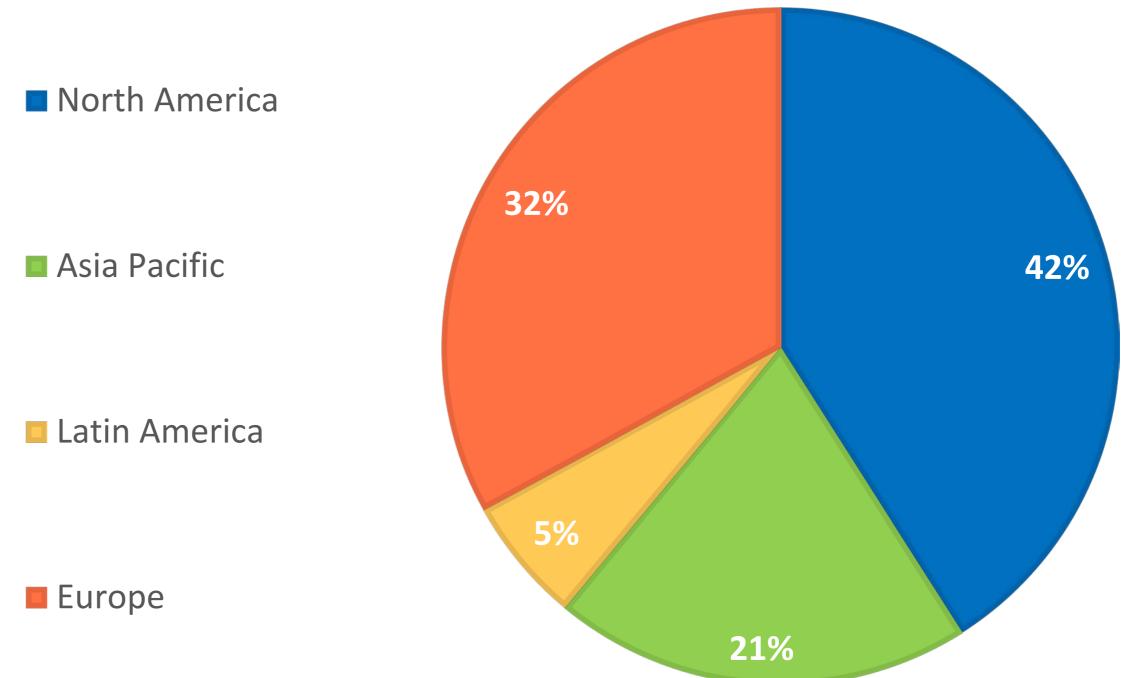
We enable the lowest possible cost of ownership by providing an alternative to the OEM.



# We Are Global

**Richardson Electronics** has a strong international presence with nearly 60% of revenue generated outside the US.

We employ local field sales engineers throughout the world who work side by side with customers, and we maintain strong strategic partnerships with the leading manufacturers.



### FY2020 – GEOGRAPHIC DISPERSION



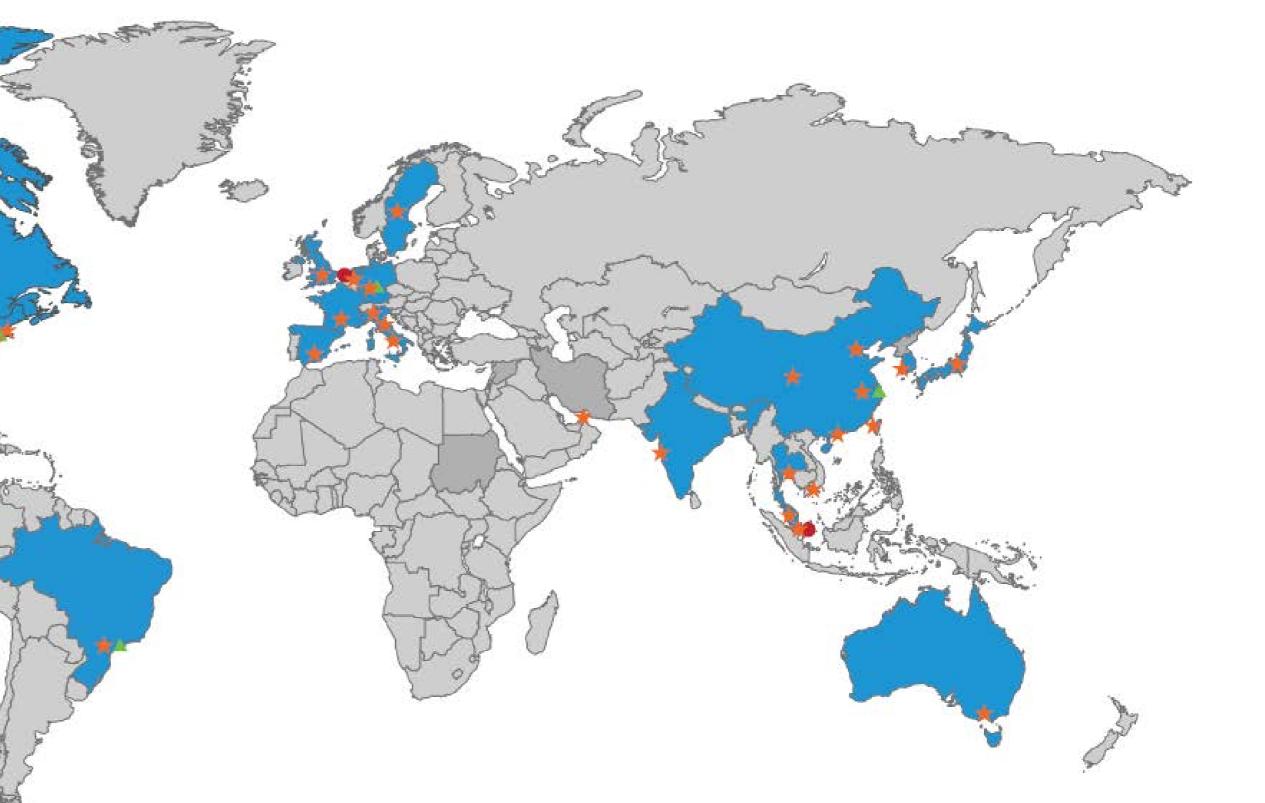


More than 60 sales offices & stocking locations

Legal entities in 24 countries With headquarters in LaFox, IL

SHIP TO & LEGAL ENTITIES (BLUE) SHIP TO ONLY (LIGHT GREY) NO COVERAGE ENTITIES (GRAY)

# We Are Local



- DISTRIBUTION CENTER
- ★ SALES OFFICE
- ▲ SATELLITE WAREHOUSE



# Global Supply Chain

We are the importer of record in 24 countries with international distribution hubs in...

North America: Illinois | South Carolina

Asia: Hong Kong | Singapore

Europe: The Netherlands | Germany

Shipment to any location worldwide in one to three business days

Transactions in local Maximum flexibility including small language, local currency quantity orders



### Satellite stocking locations in...

South America: Brazil

Asia: Shanghai

Emergency stock in all locations

> **ECCN** items flagged for export control





# **Global IT Infrastructure**

**Customer and product information includes:** 

- Ο
- Sales and quote history Ο
- Call notes; quote and call follow up and prompting
- Design tracking  $\bigcirc$
- Ο
- Pricing in local currencies converted against the dollar every day  $\bigcirc$
- Local stock shown in local currency Ο
- $\bigcirc$

Global visibility: real time system for managing customers from quote through orders

Product availability; ability to see committed, reserved, available, on order

Data is easily exchanged in many ways to identify opportunities and facilitate design wins

# **Global Engineered Solutions**

### Engineering

Global field engineering support for leading technology suppliers

Solving customer problems with design-in components and custom-engineered solutions

Meeting both technical and cost expectations

### **Service and Repair**

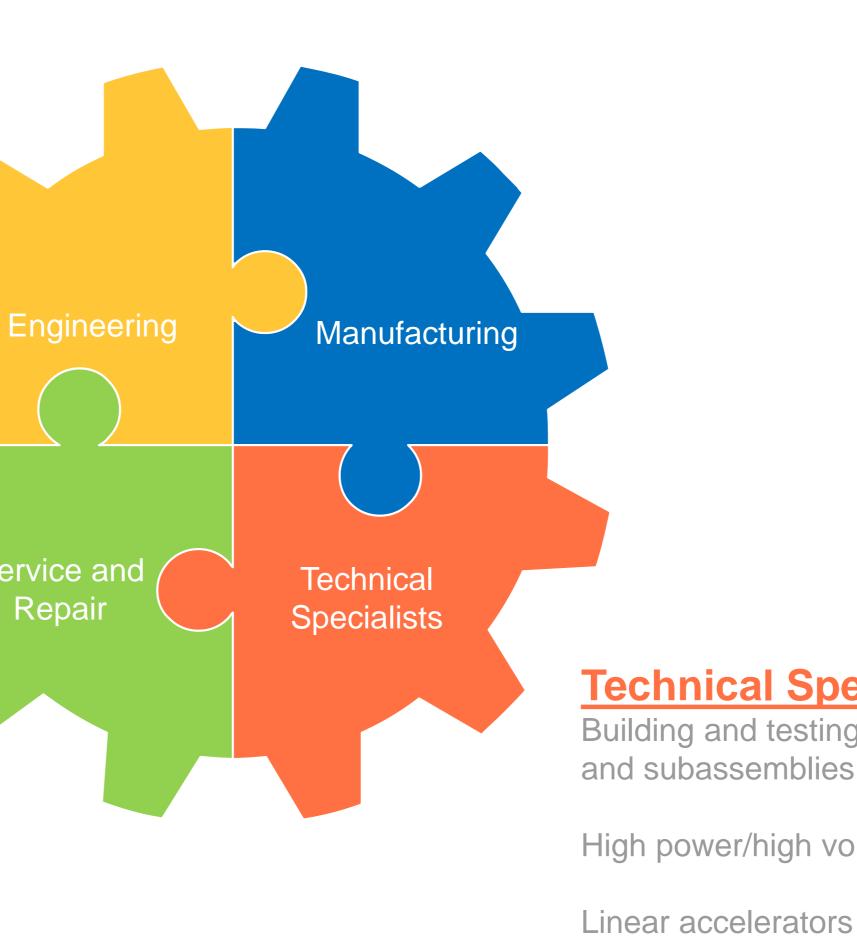
Traveling wave tube (TWT) amplifiers and related equipment for the Satellite **Communications market** 

CO<sub>2</sub> laser components

Diagnostic imaging equipment high value replacement parts

LCD displays

Service and Repair



Thermal management

Microwave generators

### Manufacturing

250K sq. ft. facility

RF and microwave components and subsystems

Ultracapacitor battery modules for Alternative Energy

Electron tubes, vacuum devices, power supplies

CT tubes for healthcare industry

Custom LCD displays

### **Technical Specialists**

Building and testing components and subassemblies

High power/high voltage

**Richardson Electronics** 



# What Our Clients are Saying

Richardson Healthcare provides reliable, cost-saving solutions for each phase of the imaging equipment lifecycle. Whether you are upgrading to a new system, selling or trading your current one, looking for parts to maintain it or need assistance on deinstallation or transport, they can help you find the best answer. Developing customer and market intimacy is critical to ongoing sales success. Richardson Electronics has proven they are more than a simple distributor through their excellent demand creation, product introductions and ongoing global customer support. We are pleased to partner with RELL to enable customers, and extend MACOM's Aerospace & Defense business success

CT Modality Manager

Jack Kennedy VP/GM - RF&Microwave MACOM

# "



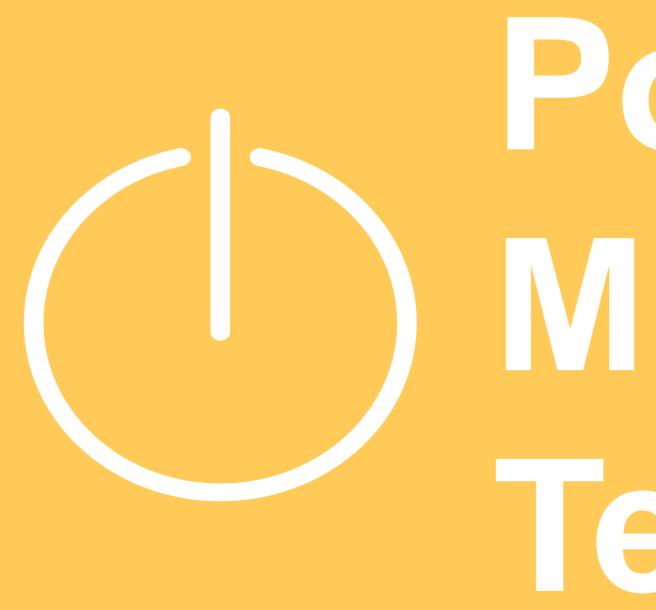
Working with Canvys has accelerated our time to market. Not only have they manufactured the display for us but their engineering design and consulting services have been a valued resource and an important supplement to our internal resources.

> VP Sales and Marketing Advantec Computer Systems



# **OUR STRATEGIC BUSINESS UNITS**





# Power & Microwave Technology





# Power & Microwave Technology (PMT)

- The leading distributor of power grid and microwave tubes and related consumable parts. Formerly the Electron Device Group (EDG).
   Global provider of Engineered Solutions focusing on industrial tube manufacturing, microwave generators, power supplies and customer specific parts and assemblies
- Bringing key technologies to the world for power, microwave niche applications
- Highly specialized in demand creation for new technologies
- Technical service for medical, military,
  satellite communication and scientific
  markets

- Solutions for Renewable Energy, Power
  for
  conversion, Defense, Communications,
  Marine/Avionics, Industrial, Scientific, Medical
  and Semiconductor/ Plasma equipment
  for
  markets
  - We partner with manufacturers of leading edge and disruptive technologies. These technologies drive the latest innovations for our customers.





### **Electron Device Group**

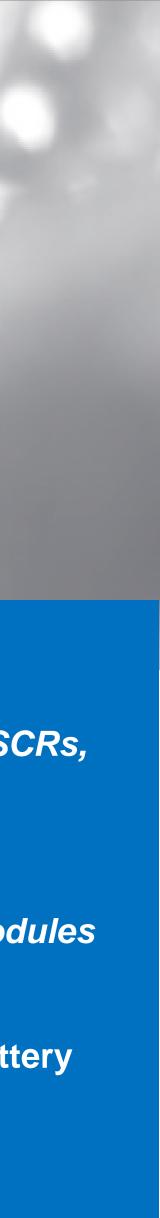
- **Power Grid Tubes**
- Magnetrons
- o **Klystrons**
- Hydrogen Thyratrons
- Traveling Wave Tubes
- High Voltage Capacitors
- **CW/Pulsed Microwave Products**
- Waveguides
- Microwave Generators
- Cathode Ray Tubes

- Semiconductors GaN, SIGe, GaAs, CMOS SOI
- Frequency Conversion
- Test & Measurement Products
- Capacitors High Q
- Cable Assemblies
- Connectors & Adapters
- **Resistors & Terminations**
- Thermal Management

### **RF & Microwave**

### **Power Management**

- Semiconductors IGBT, MOSFET, SCRs, **Rectifiers**
- Semiconductors SiC, Silicon
- Semiconductors *Discrete, ICs, Modules*
- Capacitors Film & Electrolytic
- **o** Ultracapacitors & Ultracapacitor Battery Modules
- **Power Resistors**
- Current & Voltage Sensors
- Magnetics
- Thermal Management



### RF & MICROWAVE









LiConn, Inc.

### POWER SEMICONDUCTORS

R Fuji Electric knovaling Energy Technology



TANNURA



PASSIVES





AMOGREENTECH







JRC

Electron Devices

# Global **Partners**\*

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### **Key Customers\***



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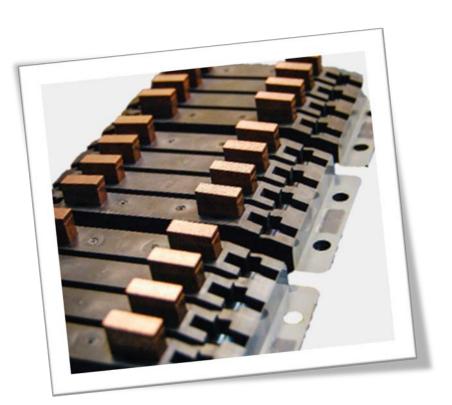




# Healthcare

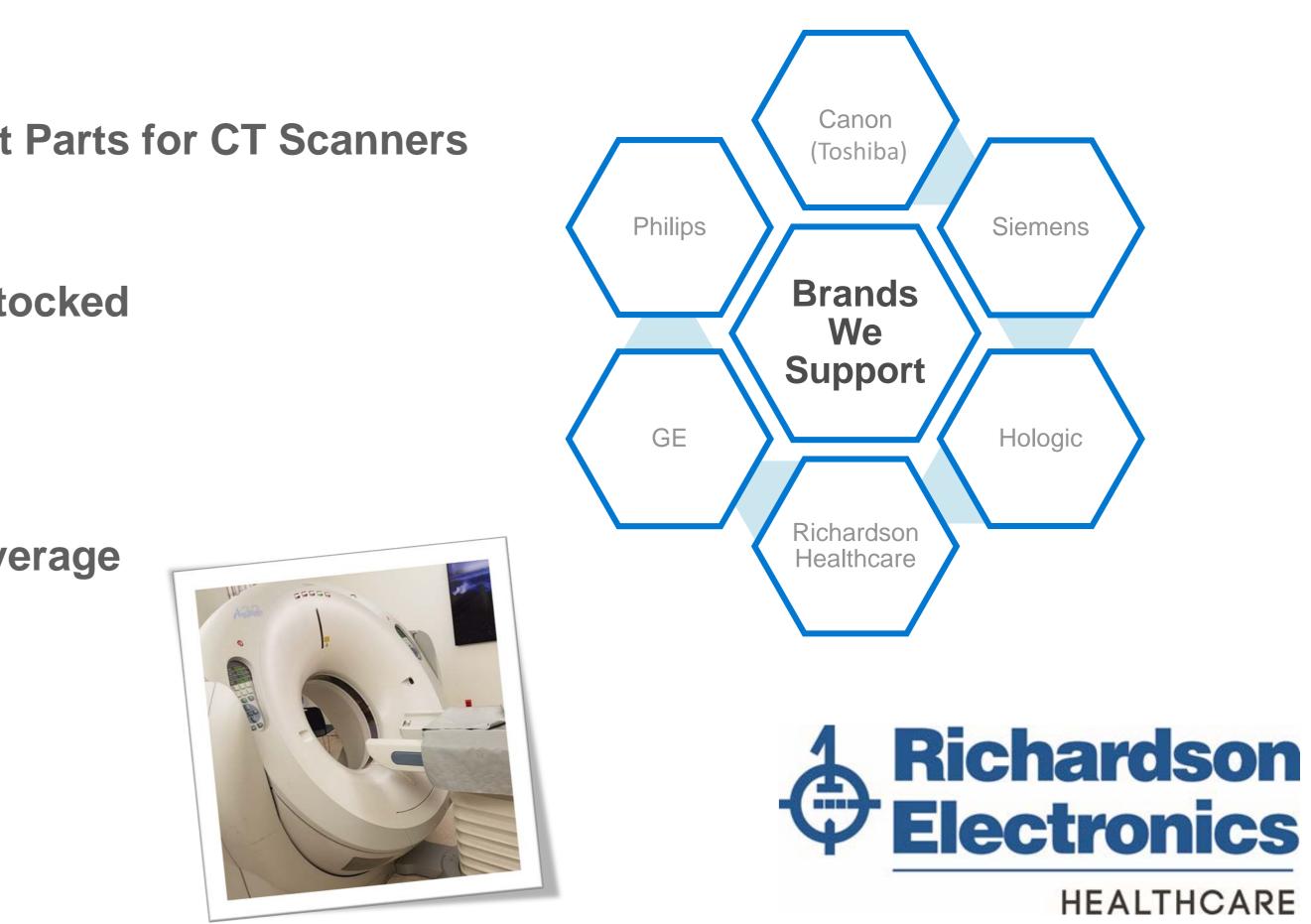
Richardson Healthcare helps lower the cost of healthcare delivery with high value parts, upgrades and training solutions for hospitals and third party service providers.





### **Products**

- Diagnostic Imaging Replacement Parts for CT Scanners
  - **Tubes**
  - Parts
    - Harvested, tested and stocked
    - Manufactured in house
    - Outsourced
- **Refurbished CT Systems**
- Training Classes
- Varying levels of P3 contract coverage
  - Transactional
  - Fixed fee—parts only
  - Fixed fee—parts and tubes
  - Fixed fee—all inclusive







# THE ALTA750<sup>®</sup> CT TUBE

### Designed to meet or exceed the performance of the original OEM tube.

- >> The Richardson Healthcare ALTA750 replacement vacuum tube assembly is loaded into an OEM housing, to ensure full compatibility with the OEM CT system.
- >> The ALTA750 comes with a warranty period of 12 months or 200,000 rotations, whichever comes first.
- >>> For a limited time, we will provide a 90-day Complete Satisfaction Guarantee: Customers for the ALTA750 will receive a 90-day, no questions asked, Complete Satisfaction Guarantee on their first tube purchased! Ask us for more details.
- >> The ALTA750 tube is also available through our P3 Preferred Parts Partnership program. Contact us for more information about our P3 options and a guote today!
- >> FDA Registered

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The ALTA750 is a form, fit and function replacement for the Toshiba/Canon\* Medical Systems CXB-750D/4A CT tube, also known as the Varex Imaging MCS-7078 tube.



# Richardson Healthcare

### Compatible with OEM platforms from Toshiba Aquilion 4-slice through the PRIME (Gen 1)

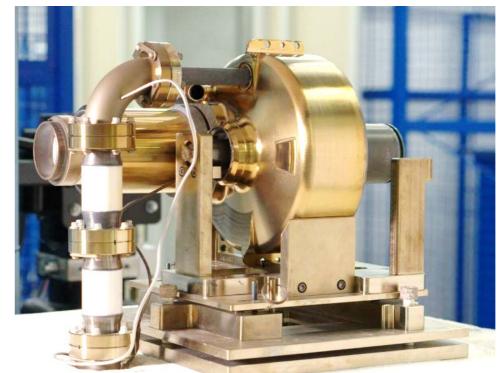












Includes a Heat Exchanger and new HV Cable Kit as a complete tube assembly \*\*

\*\*All items must be replaced at the time of the installation in order to activate the ALTA750<sup>™</sup> tube warranty.

## **Our Services List: Healthcare**







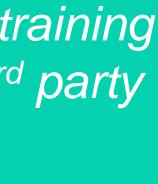
Providing OEM quality replacement parts and training to support in-house clinical engineering and 3rd party equipment maintenance companies

### Depot Repair & Refurbishment









Parts and training facilities in the US and Europe to best support customers

**Proprietary QA3** testing program means the industry's top quality rates



**Technical support** available 24/7/365 from our expert engineers

**Every part shipped is** packaged like a new product; quick delivery nearly anywhere in the world



## **Key Customers\***



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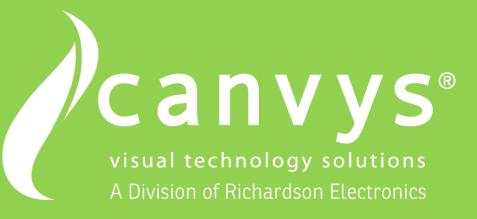
# **TriMedx St. Elizabeth**







# **Canyys** [kan-vis]





# Canvys – Visual Technology Solutions

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.







### **Custom Product Options**

- Display sizes from 5" to 82"
- Custom Enclosures Ο
- Touchscreen Integration Ο
- Panel PCs Protective Shield Integration Ο
- Optical Bonding Ο
- Open Frame Ο



- Controllers | IOs | PC Integration
- Stands | Bases | Mounting
- Panel/Front & Rack Mount
- Housings





## **Our Services List: Canvys**





Integration – Touch/Protective



Prototype Design & Testing



Product Sourcing



End of Life Management



## Needs Assessment & Consultation



# Custom Manufacturing



## **Custom Product Modification**



# **Technical Support**



## Medical Certifications





# Canvys | Markets Served



### Medical OEM



### Automation and Industrial OEM



### Marine Radar



**Aviation** 



### Military Defense and Aerospace





### Financial/Stock Exchanges



### Transportation



**Retail/POS** 

## **Key Customers\***







# stryker®

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# Honeywell









# **Richardson Electronics**

Providing power, microwave, and imaging solutions to industries worldwide.

Thank you.

Last updated: 9/2/20

