

MANUFACTURING CAPABILITIES

Contract Manufacturing | Engineered Solutions



Global Headquarters in LaFox, Illinois, USA

# FROM CONCEPT TO RELEASE

Our in-house manufacturing and turnkey capabilities include design, development, sourcing, manufacturing, and testing.

Electronics



## Who We Are

For over 75 years, Richardson Electronics, Ltd. (NASDAQ: RELL) has been a leading global provider of engineered solutions, power grid and microwave tubes and related consumables; power conversion and RF and microwave components; replacement parts, tubes, and service training for diagnostic imaging equipment; and customized display solutions.

We have locations around the world and a 250,000 sq. ft. manufacturing facility located in LaFox, IL (50 miles outside of Chicago). We manufacture a wide variety of RF and microwave components, as well as electron tubes and vacuum devices and other engineered solutions such as energy storage modules and power management devices. Our capabilities extend from concept to final release, including design, development, sourcing, manufacturing, and testing.

DID YOU KNOW?

Richardson Electronics can support 1:1 testing for obsolete components to keep your supply chain moving.

### **Product Development Cycle**

Richardson's engineered solutions approach puts your needs first while leveraging our expertise in both design and manufacturing. With our passion for product quality, we have built a reputation for unmatched reliability. We stand behind every product we deliver — with our exclusive testing protocols, expert engineering team, and state-of-the-art manufacturing facility, you can be confident that Richardson Electronics is the better choice for your engineered solutions.

#### Regulatory Production Idea/Concept Comprehensive **Technical Product Pre-Production Prototype** Development Development **Builds** Certification Launch Service & Support We take your Power and Our detailed In-house These units are Our compliance After a concept or idea Digital machine shop built for testing team ensures approach to successful Engineering and produce a and engineering and evaluation. your product will manufacturing product launch, product with Embedded teams allow for Our extensive comply with the and production our team will your input and Software allows us to prototype design testing protocols most demanding continue to requirements. Solutions and development deliver solutions can be quality standards support you by Mechanical and with a focus on conducted at our and certifications for any volume providing Electrical functionality, in-house labs, in (UL, CSA, CE requirement. engineering and Design quick turnaround, the field, or both. markings, etc.). technical Circuit Board and competitive support. and Layout pricing. Design **Energy Storage** and Integration Solutions



# **Production Line Implementation**

Scalable Production Lines - Quantities from 10 to 100,000+





We are more than just another manufacturer. With over 75 years of expertise, our team is dedicated to providing exceptional service and support as we develop your production line to meet your needs. Due to our vertical integration, our capabilities include but are not limited to:

- Handling Return Merchandise Authorization (RMAs) with ease, creating refurbishment programs, and providing failure analysis upon request
- · Creating product stocking plans with warehouses all over the world
- · Manufacturing your product with a global network of certified partners
- Offering a highly adaptive workforce to quickly produce high quality products
- Delivering solutions for all types of order sizes
- We are a UL-DQS registered firm, certified to ISO9001 and ISO13485. We provide our customers with the assurance that our engineered solutions are held to the highest standards while being produced in a timely manner.

DID YOU KNOW?

Richardson Electronics provides precise copy-exact and critical component manufacturing, ensuring process repeatability, reliability, and consistent product quality across every phase of your program.

# **In-House Manufacturing Capabilities**



### **Cable Manufacturing**

- Power and RF
- Data and Communication
- IPC/WHMA-A-620 Certified Operators



#### **Vacuum Tube Production**

- Magnetron Conversion
- CW Magnetron Manufacturing
- CT Tube Manufacturing



#### **Custom Production Lines**

- Flexibility for Low Or High Volume
- Streamlined for Cost Efficiency
- Custom Work Cell = Quality Output



### **Electromechanical Assembly**

- Industrial Equipment
- Microwave Components and Sources
- Power Conversion Systems



### **PCB Assembly**

- Pick and Place Lines with AOI
- X-Ray Inspection
- Automated = Repeatability = Cost Savings



### **Machine Shop**

- CNC Machining
- Sheet Metal Fabrication
- Plating, Welding, and Brazing



# Design

- Team of Engineers
- Product Design/Development
- Circuit Board Layout & Design
- 3D CAD Design & Simulation
- Embedded Software Solutions
- Advanced Component Selection



# **Testing**

- Quality Certifications
- High Voltage and Power Conversion
- Customized Quality Process
- RF, Digital and Power Testing
- Automated Test Sets
- Regulatory Compliance



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