

# **LCR ELECTRONICS, INC.**<sup>®</sup>

ENGINEERED PRODUCT SOLUTIONS IN A CUSTOMER FOCUSED CULTURE



**Your best connection for  
precise EMC compliance  
and electronic controls.**



# Engineered product solutions for demanding commercial applications.

At LCR Electronics, our EMI and electronic control capabilities are designed to help your products deliver far more for much less. But we are more than just a component source. We are a uniquely integrated company for advanced design, engineering, manufacturing, testing and technical support focused on truly understanding your needs, achieving the optimum balance of quality, performance and cost-efficiency.

For almost 30 years, we have earned our "can do" reputation for designing and delivering results that more than meet our customer's expectations. And we invite your critical evaluation of our ability to understand and address the specific requirements of your next product innovation... delivered on target, on time and on budget.

## Integrated to maximize reliability.

The benefits of our vertically-integrated organization are just as valuable for our contract manufacturing as they are for our custom production units.

Experienced design and engineering teams at our 50,000 sq. ft. Norristown, PA facility coordinate closely with our in-house production and testing personnel to offer:

- *Prototype and Pilot Production Runs*
- *A Class-3 Clean Room*
- *Wave Soldering Equipment*
- *Certified Soldering*
- *Shielded EMC Test Enclosures*
- *CNC Machining, Fabrication and Metal Forming*



*Unique in-house EMC test facilities enable cost-effective LCR solutions meeting specific performance requirements in less than three days.*

Our wholly-owned, RoHS compliant production facility near Shanghai, China provides an added cost-effective alternative for delivering high-volume commercial products as well as flexibility for build-to-print contract manufacturing:

- *PCB Assemblies*
- *Subsystem Contract Manufacturing*
- *Commercial EMC Products and Controls*
- *Wire Harness or Cable Assemblies*

*We maintain an extensive "second-source" database of fully-approved, exact-equivalent parts to ensure timely delivery of reliable, affordable, cost-effective products.*





# If it's electrical, we can help you control it.

Visit our website or contact us directly to learn more about the full scope of our diverse product and customization capabilities outlined below.

## EMI Filters and Suppression Components

From cost-efficient, standard off-the-shelf commercial products to custom military designs, every EMI filter solution benefits from LCR's years of experience:

- Single-phase and Three-phase Filters
- Appliance Filters
- Communication Line Filters
- Custom EMI Filter Design
- Mil-Spec Filters
- Power Line Filters
- Power Entry/Medical Filters
- Washing Machine Filters

Our corresponding EMI control experience also yields a variety of top-quality suppression components and board level solutions:

- X & Y Suppression Capacitors
- Common Mode Chokes
- Differential and Common Mode Coils
- High Frequency Chokes

## Electronic & Motor Controls

LCR delivers solutions to your challenges in appliance, food service, power tool and other commercial applications providing product features and process controls, including:

- Temperature
- Power
- Lighting
- Liquid Level
- Pressure/Flow
- Cycle Time

Our expertise in PWM and phase cut motor drives for commercial applications enables control in speed, torque, position, efficiency, power quality and safety. This includes a broad range of motor types from sub-fractional to 2 hp.

- Brushless (BLDC)
- Brush/Universal
- Split Phase (PSC)
- AC Induction (three-phase)
- Shaded Pole
- Stepper

## Subsystem Enclosures and Backplanes

In-house design and manufacturing provide single-source reliability for diverse military, aerospace, medical and high-end commercial applications – including cPCI, VME, VXI, VPX, ATCA, MicroTCA and other architectures.

- Standard and Custom Enclosures
- Multi-layer Backplanes
- Wire Harness/Cable Assemblies
- Wire Wrap Backplanes
- Rack-mount Chassis
- Related Accessories
- Flex or Rigid-flex Circuit Assemblies
- Custom Integrated PCB Assemblies

## Engineering, Testing, and Manufacturing

Regardless of your application, you can harness 30+ years of experience in electronic design and production through LCR's proficiencies in:

- Electronic Contract Manufacturing
- Wiring Assembly
- EMI Filter Design
- PCB Design
- EMC Testing
- Consulting Services



## Build on our experience.

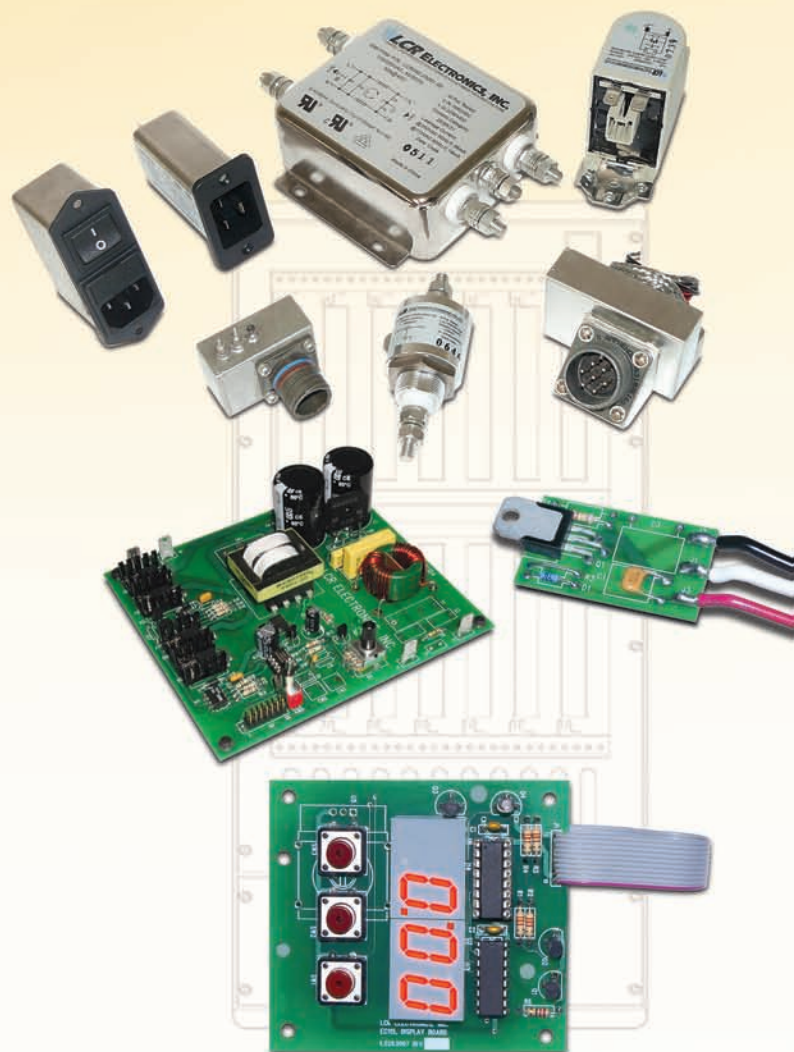
Whether you need to match specific component capabilities or want to explore alternatives for implementing or improving your product designs, LCR Electronics combines the advantages of innovative thinking with documented reliability.

Our extensive line of quality off-the-shelf and custom EMI filters, electronic controls, capacitors, coils and chokes have proven their value throughout a diverse range of applications and markets:

- Household Appliances
- Industrial Equipment
- Medical Equipment
- Power Supplies
- Commercial Appliances
- Power Tools
- Scientific Instruments
- Automotive Controls
- Communication Equipment
- Military/Aerospace

And the same knowledge base and skill sets responsible for more than 18,000 existing designs also give us a unique ability to “push the envelope” for your specialized needs, when necessary. That is why LCR is your best single-source choice to:

- Develop an EMI solution.
- Retest the product.
- Issue a comprehensive test report (*usable for self-certification*).
- Deliver a practical, economical prototype in days.
- Deliver custom products as quickly as four weeks.



## Take your next project to the next level.

Involving our knowledgeable team as part of your initial product design does more than just satisfy basic requirements. It can also help you optimize system costs by tapping into our expertise for:

- Component Selection
- Custom Component Modification
- EMC Training Seminars
- Custom Design Consulting

Don't settle for stock answers when a more personalized approach can deliver greater value in your finished application. Take it to the next level by visiting [www.lcr-inc.com](http://www.lcr-inc.com) or calling **1-800-LCR-4EMC** (1-800-527-4362).

Three decades of experience with electromagnetic compatibility (EMC) standards provide the insight to satisfy compliance across a variety of commercial standards as well as military and aerospace requirements.



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**Call 1-800-LCR-4EMC (1-800-527-4362)**

**for all your EMC needs!**

[www.lcr-inc.com](http://www.lcr-inc.com)

LCR Electronics designs, develops and manufactures EMI filters, electronic controls, motor controls, backplane & subsystems and wire harness assemblies. All LCR products are designed and developed at the Norristown, PA facility. Commercial EMI filters and electronic and motor controls are manufactured at either LCR's wholly-owned low-cost China facility or at the US facility.

Due to a policy of continuous improvement and quality assurance, specifications are subject to change without notice.

