# Tecate Group

Capacitor, Ultracapacitor, and Manufacturing Solutions



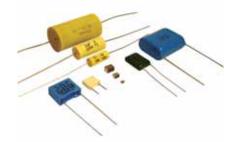
### **Capacitor Solutions**

Tecate Industries has been providing a comprehensive range of standard and application specific capacitors for more than 40 years. To support the ever increasing demand for more sophisticated electronic equipment, Tecate Industries offers a host of value-added services to complement its extensive product line-up. Whether you are looking for a hard-to-find film capacitor or need a consignment program that is customized to fit your business, Tecate Industries has the resources and experience to respond quickly to help you get the kinks out of your supply chain.



#### Ceramic: Multilayer and Disc- NPO, X7R, X5R and Y5V

- Surface mount
- Standard: 0.1pf ~ 100µF, 4 ~ 200V, 0201 to 2225 sizes
- High voltage: Tip & Ring, 250V ~ 5KV, 0805 to 2225 sizes
- RF/Microwave: 0.2 ~ 1000pF, 50 ~ 200VDC
- Safety certified: X2Y3, X1Y2, 2 ~ 4700pF, 3 ~ 6KV
- Radial leaded: 0.1 ~ 4.7μF, 50 ~ 200V, various lead spacing available
- Axial leaded: 10pF ~ 1μF, 50 ~ 200V



#### Film: PET, PPS, PEN and Polypropylene

- Surface mount: 0.001 ~ 4.7µF, 16 ~ 630V, -25 ~ +125°C
- Radial leaded: dipped and box types
- Polyester Box: 0.001 ~ 10μF, 63 ~ 1KV, 5 ~ 10mm + lead space
- Safety: X2 box metallized polypropylenes, 275 AC, 0.0047 ~ 2.2μF
- Motor run and power factor correction
- Axial polyester/polypropylene wrap and fill: 330pF ~ 18μF, 100 ~ 3KV
- Custom: built to customer specifications



## Aluminum Electrolytic: Polar, Non-Polar, Extended Temperature, Extended Life, Low ESR

- Surface mount: 0.1 ~ 6800µF, 4 ~ 450V, -55 ~ +125°C
- Radial/axial: general purpose, low leakage, low profile
- Application specific: switching power supplies, crossover networks, etc.



#### **Tantalum**

- Surface mount: 0.1 ~ 680μF, A to E and V case sizes, 2 ~ 50V
- Radial leaded: 0.1 ~ 330µF, 6.3 ~ 50V, radial dipped epoxy
- Low ESR: 1.5 ~ 680μF, 6.3 ~ 50V, A to E case sizes

#### Value Added

- Customized testing: cell sorting, binning, matched pairs, lead forming, etc.
- Supply management: consignment, demand pull, JIT, and buffer inventories
- Technical support: quick turn BOM crosses, component substitution strategies, and custom designed capacitors

## **Manufacturing Solutions**

Tecate Products is a full-service manufacturing resource for companies that are searching for an experienced outsourcing specialist. Tecate Products' size provides your business the personal and individual attention that you require.

Tecate Products specializes in low-to-medium production volumes and has the flexibility to react quickly to changes.









#### **Assemblies**

- PCB assemblies (surface mount and thru-hole)
- Sub-assemblies
- Mechanical and electromechanical assemblies
- Box build and final product assemblies

#### **Audio**

- Crossover networks
- Flush mount and enclosed speakers
- Plate amplifiers
- Transducers
- Audio components and accessories

#### Cable/Wire Harnesses

- Automotive and marine
- Consumer electronics
- Industrial
- Medical
- Lighting

#### Components

- Plastics: injection molded, thermal formed, extruded
- Metal fabrication: stamped, die cast, extruded, machined
- Inductors and transformers
- Terminals, connectors, switches, and jacks

#### The Tecate Advantage

- Overseas pricing combined with domestic engineering, design, and production support
- Engineering services: mechanical design, CAD and solid modeling support, documentation
- Agency compliance and testing support, RoHS compliance, ISO/TS 16949, ISO9001
- Logistics management and worldwide shipping direct from Asia or from Tecate's California warehouse
- Custom inventory programs: including safety stock, blanket orders, and consignment
- Local sales representative support

## **Ultracapacitor Solutions**

The Tecate Group companies provide a variety of ultracapacitor cells, modules, and custom assemblies to meet the increasing demand for this emerging capacitor technology. The ultracapacitor is finding its way into new and exciting applications. As a supplement to batteries, they are ideally suited for applications requiring short bursts of peak power, shielding the battery from this heavy lifting, and providing superior charge and discharge speeds due to far lower ESR levels inherent in its construction.













#### Cells

- TPL series: 0.5 ~ 300F, 2.7V
- Cylindrical package, wide temp: -40 ~ +70°C

#### **Modules**

- 0.25 ~ 15F, 5 ~ 25V, standard modules
- Standard/custom leads and connectors available



#### **Cells**

- 4 ~ 3000F, 2.5 and 2.7V
- -40 ~ +65°C, hermetically sealed

#### **Modules**

- 20 ~ 165F capacitance range
- 15 ~ 125V modules



#### **Cells & Modules**

- 0.09 ~ 1.6F
- 2.3 ~ 5.5V
- Lowest profile
- Ultra low ESR



#### **Custom Assemblies**

- Available for all cell types
- Quickturn prototype line
- Patented modular interlocking endcap design

#### Value Added

- Integration kits: MC series for expedited proof of design verification
- Accessories: custom terminals, plates, and cables
- Engineering and design support
- On-line ordering at www.tecategroup.com



**The Tecate Group** companies are based in San Diego, California and have 45 years of experience serving OEMs around the globe with capacitor and electronic assembly solutions.

**Tecate Industries** has built its reputation on the ability to provide ceramic, film, aluminum electrolytic, and tantalum capacitors in industry standard configurations as well as build-to-print requirements. TI also offers a complete menu of ultracapacitors for applications that eliminate or downsize batteries.

**Tecate Products** has grown from being a supplier of crossover networks to many of the large speaker manufacturers to a provider of electronic assemblies that span many market segments, including audio, automotive, industrial, telecommunications, and medical.

Over the years the Tecate Group has built its business and reputation by exceeding our customers' expectations for service, quality, and price. With a solid technical staff and sales support group, we look forward to providing solutions for your capacitor, ultracapacitor, and manufacturing needs.

#### **Tecate Industries**

Phone: (619) 398-9700 Fax: (619) 398-9777

e-mail: tiinfo@tecategroup.com

#### **Tecate Products**

Phone: (619) 398-9750 Fax: (619) 398-9797

e-mail: tpinfo@tecategroup.com