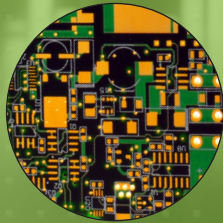
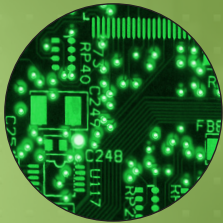
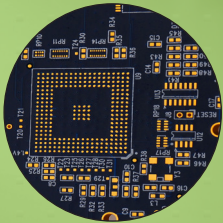
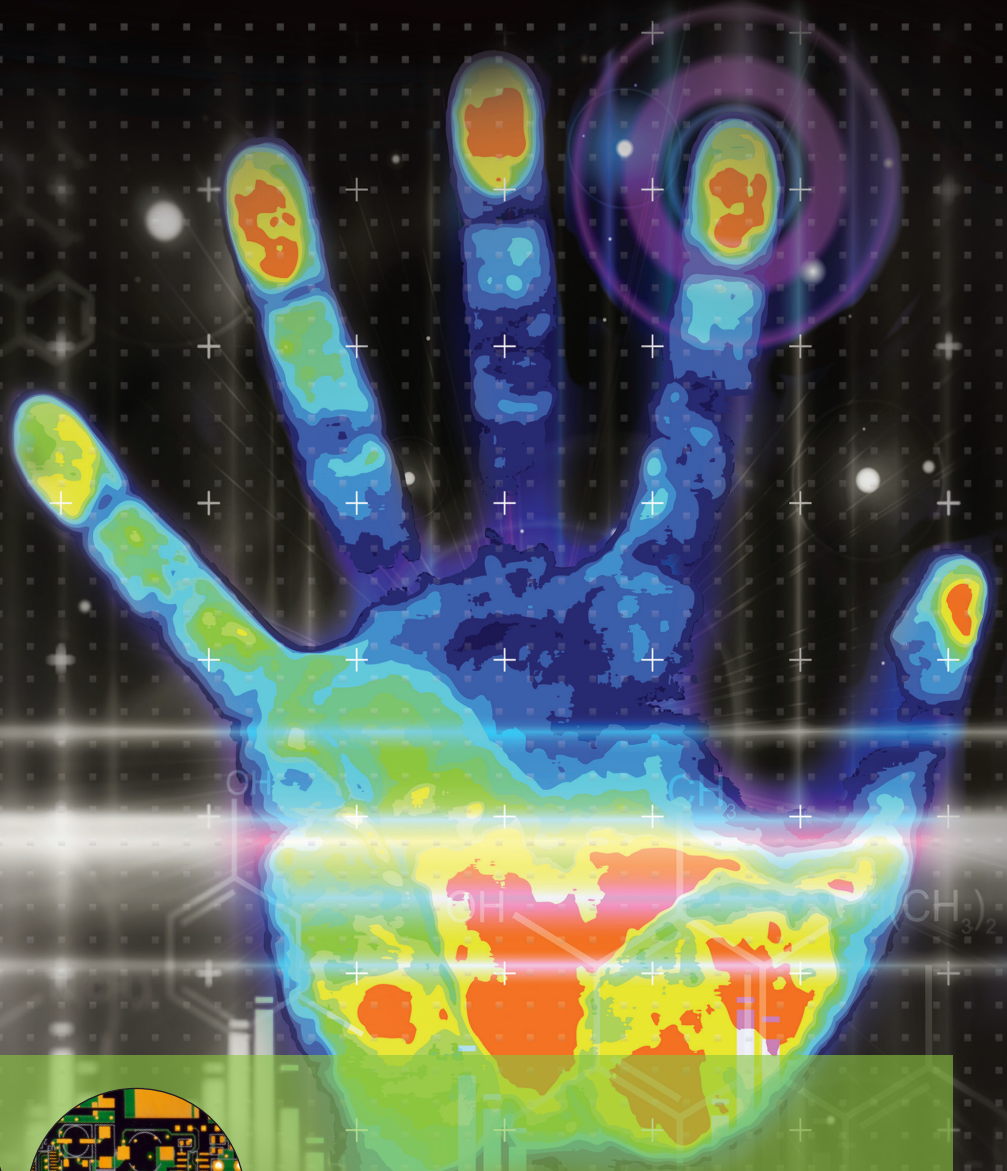


Best Value PCBs for Controlling Heat



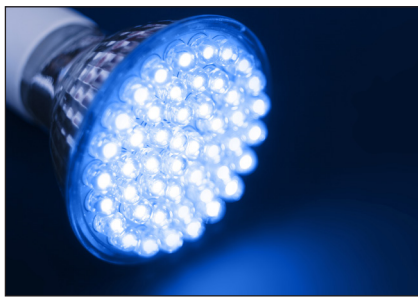
Expert Printed Circuit Board
Thermal Management
and Metal Cladding

YOUR BEST RESOURCE FOR CONTROLLING HEAT

Electronic Interconnect – The PCB Experts

Electronic Interconnect is a reliable manufacturer of high quality PCBs – up to Class 3. We specialize in and focus on the design and manufacture of PC boards.

With nearly 30 years of experience, our customers have benefitted from our unique technical advancements and distinct advantages, such as thermal management, use of metal cladding, heavy copper and outstanding solderability.



As thermal management experts, we have broad capabilities in the use of heavy metals. As a result, our PCBs exhibit faster heat dissipation, longer life and reduced energy needs, such as the PCBs we have made for high-powered LED lighting.

“CUSTOMER SATISFACTION LEVELS ARE EXCELLENT AND CONSISTENT PROGRESS IS NOTED IN MEETING THE QUALITY OBJECTIVES. TOP MANAGEMENT, QUALITY MANAGER AND ALL THE STAFF IN THE COMPANY HAVE AN EFFECTIVE APPROACH TO CONTINUAL IMPROVEMENT. THIS IS PROBABLY ONE OF THE FEW COMPANIES THAT HAS ALWAYS BEEN SEEKING TO IMPROVE, YEAR AFTER YEAR.”

*- QUALITY AUDITOR
(During 2012 Quality Audit)*

Effective Use of Thermal Management

Today, many PCB materials, constructions, and configurations for electronic assemblies require special thermal management to ensure continued operation without excessive heat issues, such as

- Hot spots
- CTE mismatch
- Solder joint stress
- Thermal fatigue failure
- Shock and vibration issues

While thermal management is important for any electronic assembly that is smaller, faster and stronger, it has become a critical part of PCB design for:

- High-power devices
- RF and wireless applications
- LED lighting boards
- DC/DC converters
- Electric motor controls

Thermal Management Expertise

As PCB specialists, we have become experts in the use of metals and Thermal Management. As a result, our PCBs exhibit faster heat dissipation, longer life and reduced energy needs. Our heat management capabilities include UL-certified metal-clad PCBs with various thicknesses of dielectrics and metal bases, such as aluminum and copper.

Materials Expertise



AISMALIBAR®

TACONIC
Finding a better way

Laird

Electronic Interconnect provides thermal management solutions using the most reliable and innovative materials available.

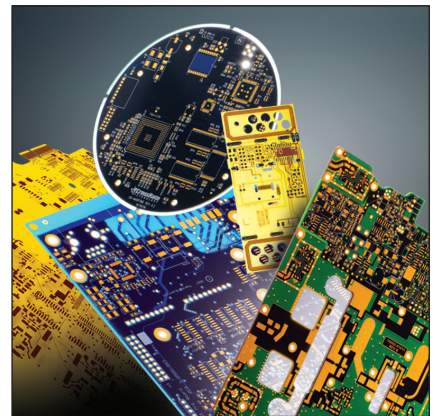
The combination of our knowledge and dedication to thermal management in PCBs, our expert processes and the use of many thermal laminates, allow us to optimize the performance and reliability of metal clad PCBs and provide the best solution to our customers. We manufacture boards with optional metal bases, provide metal cladding and use heavy copper weights.

Electronic Interconnect offers design counseling services support the Thermal Management program.

Metal Clad PCB (MCPCB) Capabilities

The use of heavy metal and metal cladding is critical to effective thermal management of PCBs. Electronic Interconnect has very deep experience and broad capabilities in this area of specialization.

- Heavy copper capabilities up to 10 oz.
- UL approved MCPCBs up to 6 oz.
- Metal thickness from 30 mil to 125 mil
- Solder masks with high reflectance
- RoHS compliant
- Multi-layer and hybrid FR4 construction
- Many construction options



Electronic Interconnect specializes in Thermal Management PCBs with broad capabilities in design and manufacturing.



Flexi-Thermal PCBs

Often called Conformable MCPCBs, these

- Metal Core PCBs (MCPCBs) from 0.004"
- Breakdown voltage AC from 2.5Kv to 10Kv
- External/internal radius up to 60°
- Extremely low thermal impedance
- Halogen-free, RoHS compliant

Direct Thermal Exchange (DTE)

With DTE technology, the thermal conduction path operates efficiently as a heat sink.

- Direct thermal conduction path
- Heat dissipates through Z axis
- No thermal transfer through the dielectric
- Resistant to UV and thermal discoloration
- Low thermal impedance
- 135W to 300W/mK conduction achieved
- Fast heat transfer rate through DTE pad
- Utilizes any base metal thickness
- Utilizes standard dielectric for the circuit area
- Utilizes FR4 epoxy, polyimide or any typical dielectric
- Other base metals available
- High power capacity
- No thermal via required



Electronic Interconnect makes Thin Lam and Flexi-therm PCBs.

PowerLink PCBs (PLPCBs) with Heavy Copper

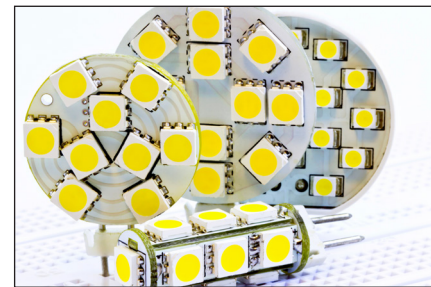
There are multiple benefits of PLPCBs, ranging from smaller PCB size to extended life. They utilize a minimum of two copper weights on the same layer for the buss bar application.

- UL approved up to 6 oz.; capabilities to 20 oz.
- Use of multiple copper weights on same FR4 plane
- Prevents circuit failure
- Reduces number of connectors required
- Increases mechanical strength
- Higher current carrying capacity
- Use of high temperature dielectric material

Fabrication for Thermal Management

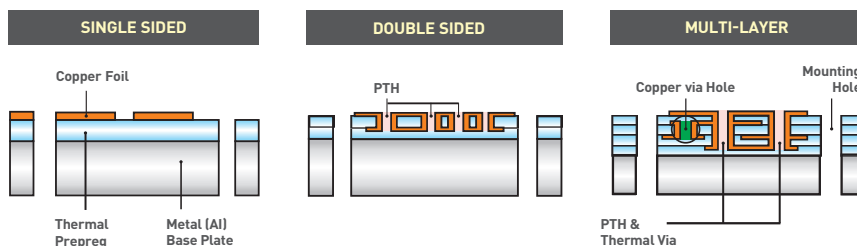
Precise machining tolerances and high-quality fabrication services at Electronic Interconnect enhance thermal management and long-term board reliability. A variety of laminates are available, based on the T-lam thermal lamination system, which includes:

1. Single side with a thermally conductive dielectric.
2. Double-sided with a thermally conductive dielectric on two sides of metal base.
3. Hybrid IMPCBs with FR-4 and a thermally conductive dielectric
4. Multi-layer construction with FR-4 and thermally conductive dielectrics on the metal base.



Electronic Interconnect uses advanced thermal management technologies to create PCBs for a wide variety of applications, such as LED lighting and power inverters.

The materials used feature strong thermal performance with high dielectric strength and low capacitance. They can eliminate the need for fans, heat sinks, and heat spreaders.



Cross Sections of Metal Core PCBs.

eiconnect.com



Customer Satisfaction



“ I WOULD LIKE TO TAKE THIS OPPORTUNITY TO THANK E.I. FOR SUPERB CUSTOMER SERVICE AS WELL AS EXCELLENT QUALITY. E.I. ALWAYS DELIVERS EXCELLENT RESPONSIVENESS FROM ALL DEPARTMENTS.”

- ANGIE DONNELLY, PURCHASING MANAGER,
ARTISAN CONTROLS CORP.

“ I HAVE TO SAY THAT IT IS THE OUTSTANDING CUSTOMER SERVICE I RECEIVE THAT MEANS THE MOST TO ME. RESPONSE TIME FROM THE SALES TEAM IS SUPER QUICK. YOU JUST DON'T GET THAT ELSEWHERE!”

- SAL PAOLILLO, DASAL INDUSTRIES LTD.

“ THE EASE OF ORDERING AND RE-ORDERING HAS ALSO BEEN A GREAT TIME SAVER FOR US. THE QUOTED SHIPPING DATES ARE ALWAYS MET ”

- DAVID HAGSTROM, HAGSTROM ELECTRONICS INC.

“ YOU ARE ALWAYS PROFESSIONAL, ON TIME, AND PROVIDE A SOLID PRODUCT AT A FAIR PRICE. AND YOUR PROCESS CATCHES MANY ERRORS BEFORE FABRICATION EVEN STARTS. ”

- MATT MESSENGER, ELECTRICAL ENGINEER, AZIMUTH INC.

“ ELECTRONIC INTERCONNECT HAS BEEN EXTREMELY RESPONSIVE AND ADAPTIVE TO ELECTROLAB'S CHANGING NEEDS AND REQUIREMENTS. EI HAS A GREAT DELIVERY PERFORMANCE RECORD TOO. I LOVE THE E-MAIL NOTIFICATIONS OF BOTH SHIPPING AND INVOICING.”

- JOHN WORTH, MATERIALS MANAGER, ELECTROLAB INC.

“ ELECTRONIC INTERCONNECT HAS BEEN ONE OF OUR APPROVED SUPPLIERS FOR ALMOST 20 YEARS. THEIR LEVEL OF DEDICATION AND RESPONSE TO OUR NEEDS HAS MADE THEM ONE OF OUR TOP PERFORMING SUPPLIERS. THE QUALITY STANDARDS AT EI EXCEED THOSE OF THEIR COMPETITION WHICH WE HAVE TRIED IN THE PAST. ”

- DON MILLER, VP, ENGINEERING AND MANUFACTURING,
SELCO PRODUCTS COMPANY

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