

PCB MANUFACTURING CAPABILITIES

	Standard		Extended Capability (Limited Quantity)
Material Type	2 Layers FR-4,	FR-4(TG-170°C)	Arlon*, Duroid*, Rogers*, Polyimide*, Kapton, metal clad & others
	4 Layers & Above	FR-4, FR-4(TG-170°C)	Arlon*, Duroid*, Rogers400X* (FR-4 B-Stage), metal clad
Material Thickness	2 Layers	.010" - .093"	.008" - .125"
	4 Layers	.031" - .093"	.021" - .125"
	6 Layers	.063" - .093"	.031" - .125"
	8-10 Layers	.062" - .093"	.050" - .125"
Layer Count	1 - 10		12 - 22
Board Size	2 Layers	16.50" x 22.50" (max)	16.5" x 23.50"
	4-8 Layers	16.00" x 22.00"	16.00" x 22.00"
IPC Class	1-10 Layers	Class III	Class III
Isolation Ring Width	1-10 Layers	8 mil /side	5 mil /side
Surface Finish	All Layers	Lead Free HASL & HASL ENIG, Gold Fingers	Immersion Silver and Nickel, OSP, Wire Bond Gold, Others
Copper Weight	Outer Layers	1-2 oz.	3-10 oz.
	Inner Layers	1-2 oz.	3-6 oz.
Trace/Space Width	Outer / Inner Layers	.005" ± 10%	.004" ± 10%
Hole Location TDL	4-12 Layers	.015" ± 0.003"	.012" ± 0.003"
Dia. Drilled Holes		.010"	.006"
Plated Slots	All Layers	>0.031"	.025"
Smallest Plated - Through (Hole Finished)	.031" Thick Layers	.014" ± 0.003"	.010" ± 0.003"
	.062" Thick Layers	.014" ± 0.003"	.010" ± 0.003"
	>/.125" Thick Layers	.020" ± 0.003"	.016" ± 0.003"
Max. Aspect Ratio	1-10 Layers 10:1 12:1		
Surface Mount Land Pitch		.050" - .025"	.020" - .012"
Soldermask (LPI)	Min. Solder Dam	.005" /Side	.003" / Side
Soldermask Color		Green	White, Red, Blue, Black, Clear, Gray, others available
Legend Color		White	Yellow, Black, Red, Blue, Gray, others available
Warp & Twist		1.5% - 05%	As Needed
Minimum Route Width		.062"	.031"
Impedance Control		± .10%	
Heat Shock		288°C ±5° %	
SMT Centerline Pitch for ET		Minimum .012"	
E-Test Voltage		50 - 250V, IPC-D-356, Net List Extraction/Compare	
File Format	Circuit	Gerber, 274-D or X	DXF, HPGL
	Drill	Excellon, Gerber	DXF, HPGL

# 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.

" 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.

" 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.

" 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.

" 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 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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The Best Value PCBs



Electronic Interconnect  
Experts in Printed  
Circuit Board Fabrication

## ELECTRONIC INTERCONNECT – THE PCB EXPERTS

### Company Profile

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, not surface mount assembly. Therefore, we do not compete with our assembly or contract manufacturing customers.

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.

### Service

We provide our customers with access to a dedicated account team for each project, and extraordinary online RFQ, Ordering and real time Job Tracking systems for outstanding customer service, including job status, shipping and delivery notification.

### Ordering Process

Our front end analysis checks 57+ parameters of customer data and prepares the data for our proprietary RFQ and Ordering system. This includes DRC (design rule checking), manufacturability analysis, single image edits and DFM (design for manufacturability) enhancements. All of our account team members have access to this real time data for your project.

*Electronic Interconnect is ITAR certified. It is also a minority owned business, certified by the Minority Supplier Development Council (MSDC).*

### Manufacturing & Delivery

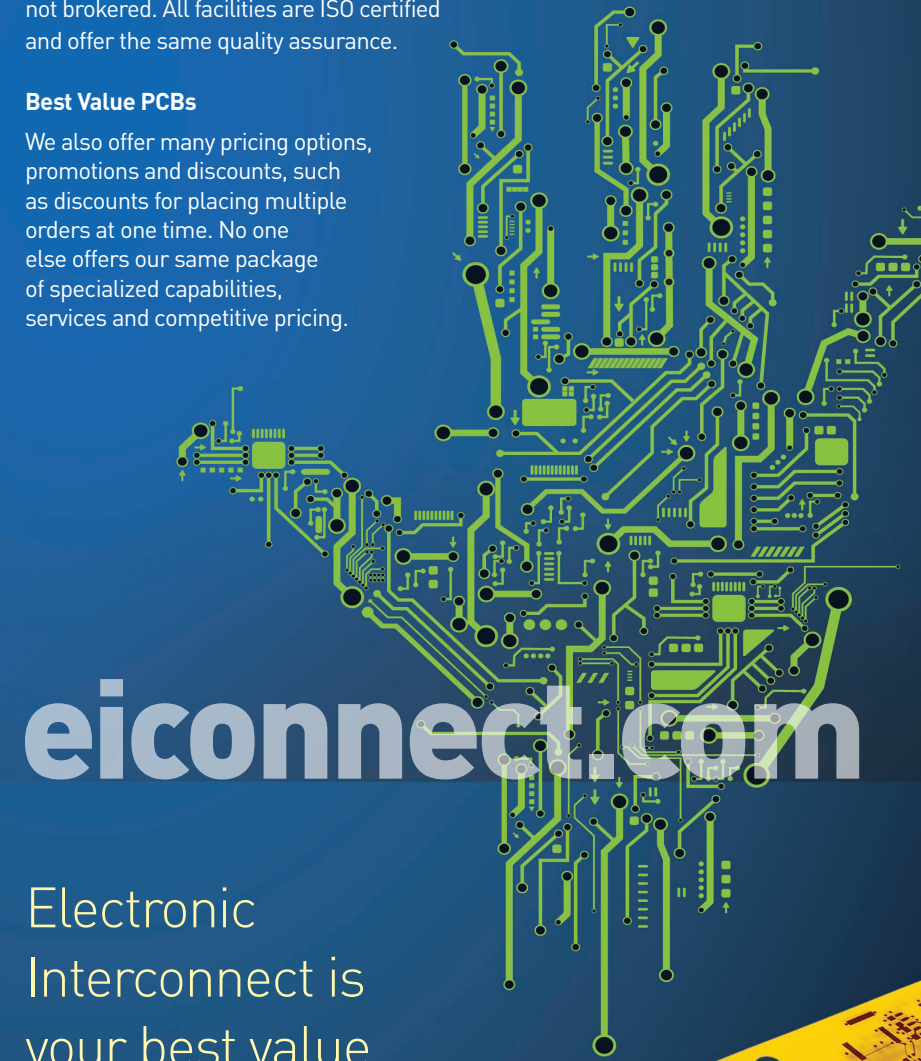
Electronic Interconnect also offers a complete selection of delivery programs and pricing options, including a dual sourcing program for manufacturing. Customers can utilize the vast technical expertise of the local Midwest manufacturing facility, or choose to use one of our offshore partners to manufacture PCBs for value pricing. This service is provided under a partnership arrangement and is not brokered. All facilities are ISO certified and offer the same quality assurance.

### Best Value PCBs

We also offer many pricing options, promotions and discounts, such as discounts for placing multiple orders at one time. No one else offers our same package of specialized capabilities, services and competitive pricing.

### A Complete Range of PCBs to Suit Your Need

- Single, double sided or multilayer
- Variety of polymer, metals and other materials – in stock
- Metal cladding, metal bases and other capabilities for Thermal Management



Electronic Interconnect is your best value for PCBs, because we are...  
**THE PCB EXPERTS.**

## WHY USE ELECTRONIC INTERCONNECT?

### 1. Greater Thermal Management and Metal Capabilities

As PCB specialists, we have become expert in the use of metals and Thermal Management. As a result, our PCBs exhibit faster heat dissipation, longer life and reduced energy needs. We manufacture boards with optional metal bases, provide metal cladding and use heavy copper weights (up to 20 oz. on the same plane with an FR4 base) where needed.

The combination of our knowledge and dedication to thermal management in PCBs, our expert process 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.

- Metal Clad PCBs (MCPCB) - UL approved up to 6 oz.; capabilities to 10 oz.
- Flexi-Thermal PCBs – conformable MCPCB
- Direct Thermal Exchange (DTE), thermal conduction path operates as a heat sink
- Power link PCBs (PLPCB) with heavy copper (UL approved up to 6 oz.; capabilities to 20 oz.)

### 2. Broad Range of Materials

We are experienced in the use of a large variety of raw materials, such as ceramics, foams, polymers, and metals. And many of these materials are kept in stock, ready to use for the next PCB project.

At Electronic Interconnect, we use a wide range of laminate materials, enabling us to provide rapid response to your prototyping and other requirements. As PCB experts, we can help you with the correct choice of thermal dielectric and base metal, both of which are key factors in maximizing PC board lifetime and reliability. We also provide scalable solutions from prototype to production quantity. Both stages of manufacturing utilize the same process, whether for prototype or production, ensuring product consistency.



*Electronic Interconnect maintains a large stock of materials from reliable brands and suppliers.*

### 3. Manufacturing and Pricing Options

Electronic Interconnect offers its customers greater ordering flexibility with the choice of utilizing our specialized manufacturing resources locally in the Midwest, or offshore manufacturing services for projects requiring value pricing. We do not broker jobs; all offshore work is performed by our partners in their ISO certified facilities and quality assurance is the same at all locations. This flexible sourcing option is not offered anywhere else!

Other features of this program include:

- Low Minimum Order Quantity (MOQ) and Low Minimum Order Value (MOV)
- We manage the offshore process for customers, saving you time and effort
- Material supply chain analysis is available
- Production facility visits, quality audits and process audits are available
- Control plans and certifications of offshore partners are made available to customers per IPC 1710A
- U.S. manufacturing operations provide a backup to all offshore orders. Should there be any delays with delivery, the job will be manufactured in the U.S. at the same price
- We also help customers resolve any project problems they may have with other offshore manufacturing companies

**“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)*

### 4. Exceptional Service

Electronic Interconnect has a unique service program which includes an expert account team structure, and a proprietary online RFQ, Ordering Processing and Job Tracking system for fast and reliable customer service. An Engineering Help Desk is available, from RFQ through production, to provide expert assistance as needed.

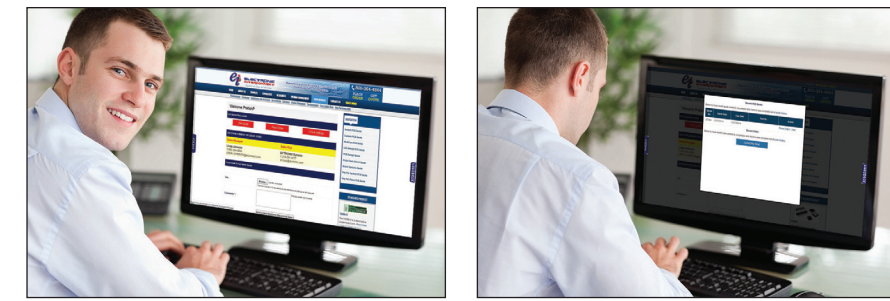
### Your Own Account Team

Any member of your assigned account team is available to contact at any time:

- Account Manager – main contact
- Engineer
- Local Sales Representative
- Production Manager

### Account Information at Your Fingertips

Our unique online RFQ, Ordering and Tracking system allows access to real time status information, along with detailed customer account info, shipping and delivery notification, quotes and invoices. This information is also available to each of your Electronic Interconnect Account Team members and enables our fast response time.



### Fast RFQ and Quoting Process

RFQs can be submitted online for instant response. If emailed, our response time is 2 hours or less.

When your data file package arrives, it is kept completely secure and confidential. We process the data to normalize it and ready it for the RFQ response. This includes a Design Rule Check (DRC) and a Design for Manufacturability (DFM) analysis to optimize the efficiency in the assembly process. Panel layout assistance can also be provided.

### Robust Ordering & Job Tracking System

You will have login access to your own customer account online. Here, you will be able to access all of your account information and track the ordering process through to shipping and delivery. You will know where your project stands every step of the way.

In addition to credit card payments, we accept customer P.O.s and terms with online orders.

If and when you need to reorder your boards, the process is simple. All tools and records are maintained and ready to process for reordering your PC boards.

### Convenient Delivery Options

Our central Midwest location allows for efficient logistics anywhere in North America. Located near O'Hare Airport in the Chicago area, we are able to provide:

- Same day shipments
- JIT
- Multiple drop shipments
- Destination deliveries

Shipping discounts are also available.

