



## TRAINING

- Expert Training in the Latest Technologies
- Industry-Demanded Certifications

## PCB TECHNOLOGY

### Quality & Inspection

- IPC-A-610 Instructor & Operator Certification

### Soldering & Assembly

- IPC J-STD-001 Instructor & Operator Certification

### Bare Board Inspection

- IPC-A-600 Instructor & Operator Certification
- IPC-6012 Instructor & Operator Certification

### Rework & Repair

- IPC-7711 & IPC-7721 Instructor & Operator Certification

### Hand Soldering Skills

- Soldering Basics, Wires & Terminals, Lap Solder Joints, Through-Hole and Surface Mount Training

### PCB Fundamentals

- Component Identification
- Electrostatic Discharge

### PCB Design

- Essentials of PCB Design
- IPC Designer Certification

## COUNTERFEIT COMPONENTS

### IDEA-STD-1010

- Seminars & Workshops
- IDEA-STD-1010 Essentials
- SAE AS5553 Counterfeit Electronics

## CABLE & WIRE

## HARNESS TECHNOLOGY

### Quality & Inspection

- IPC-A-620 Instructor & Operator Certification

### Hands-On Labs

- Crimping & Harness Assembly Training

## TECHNICAL SUPPORT

- Manufacturing Start-Up
- Process Evaluation
- Subcontractor Qualification
- Equipment Evaluation
- Lead-Free, ESD, Process and Quality Audits

## IPC-A-600 CERTIFIED IPC TRAINER

### IPC-A-600 Instructor / Training & Certification Program

## IPC-A-600

## COURSE DESCRIPTION

This 3-day, lectured course utilizes the images in the IPC-A-600 document to provide visual criteria examples for all three classes of bare board fabrication and inspection. The IPC-A-600, "The Acceptability of Printed Boards", describes the target, acceptable, and nonconforming conditions that are either externally or internally observable on printed boards.

The IPC-A-600 specification is the focal point of this course and will be covered in its entirety. As part of the requirements for certification, students must score an 80% on the final examination.

## WHO SHOULD BECOME CERTIFIED

This is an advanced course. Anyone responsible for the quality and reliability of printed wiring board products should become certified. This includes quality supervisors, engineers, manufacturing supervisors, and users of printed wiring boards.

## PREREQUISITES

- Completion of IPC's on-line IPC Essentials program\*
- Completion of IPC's on-line Policies & Procedures program \*
- Understanding of Printed Circuit Board Fabrication in Electronics Manufacturing
- Understanding of the English language, oral and written

\*In order for IPC Certification to be issued, completion of these two on-line programs must be completed outside of class via IPC's website. If the IPC Enhanced Policies and Procedures Exam is also listed, in the IPC Pre-Course section, complete this exam on-line outside of class.

## CLASS SIZE

Maximum number of students is limited to ten (10) to provide greater instructor interaction. Call early to reserve your space.

## COURSE OUTLINE

### DAY 1

#### Introduction

- General Overview
- Terms and Definitions
- Acceptance Criteria

#### Externally Observable Characteristics

- Board Edges
- Base Material Surface and Subsurface
- Solder Coatings and Fused Tin Lead
- Holes-Plated Through and Unsupported
- Printed Contacts
- Marking
- Solder Mask
- Pattern Definition
- Dimensional

Flatness

### DAY 2

#### Internally Observable Characteristics

- Dielectric Materials
- Conductive Patterns
- Plated Through-Holes (General, Drilled, Punched)

#### Miscellaneous

- Flexible Printed Circuits
- Rigid - Flex Printed Boards
- Metal Core Printed Boards
- Flush Printed Boards
- Cleanliness Testing
- Solderability Testing
- Electrical Integrity
- Instructor Skills

### DAY 3

- Course Summary/Review
- Open Book Examination
- Instructor/Student Conference
- Wrap-Up

**eTRAINING** On-line training is available for some courses. Please inquire.

**ON-SITE TRAINING** Please call a training consultant and ask about customized course content, on-site training and training around your production schedules.

**REGISTRATION** For up to date pricing and more information on any of the EPTAC programs, or to enroll, please call us toll free or visit eptac.com.

**Toll Free:** 1-800-64-EPTAC

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