



## 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

- IPC Designer & IPC Advanced Designer Certification

## COUNTERFEIT COMPONENTS

### IDEA-STD-1010

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

## CABLE & WIRE

## HARNESST 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-610 CERTIFIED IPC TRAINER WITH OPTIONAL LAB

### IPC-A-610 Instructor Training & Certification Program

## IPC-A-610

## COURSE DESCRIPTION

This 4-day, lectured course is a comprehensive, instructor-level certification that teaches inspection criteria of solder joints for all three class levels of assembly production - for both lead and lead-free. This course is based on the IPC-A-610, "The Acceptability of Electronic Assemblies" and utilizes the images in the IPC-A-610 document to review the visual accept/reject criteria for Wires and Terminal, Through-Hole and Surface Mount solder joints.

### Interactive PCB Inspection Lab (additional fee applies)

This is an optional, 1-day course intended for any employee who will be inspecting printed circuit assemblies or any employee who wants to improve or reinforce their observation and inspection skills of printed circuit assemblies. This course utilizes lectures, visual acuity exercises, and physical assemblies to provide the students with an experience in visually inspecting printed circuit assemblies.

## WHO SHOULD BECOME CERTIFIED

This is an advanced course. Anyone responsible for the quality and reliability of electronic assemblies should become certified. This includes trainers, quality supervisors and engineering and manufacturing supervisors with assembly responsibilities.

## PREREQUISITES

- Completion of IPC's on-line IPC Essentials program\*
- Completion of IPC's on-line Policies & Procedures program\*
- Understanding of the Electronics Manufacturing Process
- 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.

**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

**email:** register@eptac.com

**Web:** eptac.com

## COURSE OUTLINE

### DAY 1

- Introduction -Establishing and Maintaining Program Integrity
- Foreword, Applicable Documents and Handling
- Hardware
- Soldering

### DAY 2

- Terminal Connections
- PCBs and Assemblies
- Through-Hole Technology

### DAY 3

- Surface Mount Assemblies
- Component Damage
- Discrete Wiring
- Instructor Skills and Responsibilities

### DAY 4

- High Voltage
- Course Summary/Review
- Open Book Examination
- Closed Book Examination
- Instructor/Student Conference

### DAY 5 - OPTIONAL INTERACTIVE PCB INSPECTION LAB (additional fee applies)

This optional, 1-day lab utilizes, lectures, visual acuity exercises, and physical assemblies to provide the students with an experience in visually inspecting printed circuit assemblies

#### Introduction

- Terms and definitions
- Why inspect
- How to inspect

#### Observation Skills Practice 1

##### The Needs of Visual Inspection

- Good Visual Acuity
- The ability to detect differences
- Review of Basic Manufacturing Knowledge
- Systematic approach
- Patience, Discipline, Consistency

#### Inspection Lab 1: Through-Hole Board

- Review results of Lab 1
- Discuss improvements

#### Observation Skills Practice 2

##### Inspection Lab 2: Surface Mount Board

- Review results of Lab 2
- Discuss improvements

#### Observation Skills Practice 3

##### Inspection Lab 3: Mixed Technology Board

- Review results of Lab 3
- Discuss improvements
- Instructor to grade results

#### Wrap up

- Certificate of Attendance