



#### **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-610 CERTIFIED IPC SPECIALIST WITH OPTIONAL LAB**

IPC-A-610 Operator and Inspector Training & Certification Program

## IPC-A-610



#### **COURSE DESCRIPTION**

This course is for anyone needing to obtain an IPC-A-610 Specialist Certification. The lecture will review the content of the IPC-A-610 standard and provide explanation of the accept/reject criteria to be applied to their visual inspection process.

Lectures will be covered over a 4-day period, with testing daily on the modules covered that day. Class length will vary daily based on the lectures covered and the testing time needed by each attendee.

Attendees must successfully complete open book exams in all 7 modules to obtain a full 610 Specialist certification.

All instruction and communication within the class will be conducted in English, and attendees need to have the ability to understand both spoken and written English to fully engage with the course material and complete the exams.

Recertification is required every 24 months.

## Optional 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 course is for anyone responsible for the quality and reliability of electronic assemblies. This includes engineers, quality supervisors, inspectors and manufacturing personnel responsible for quality assurance.

# **PREREQUISITES**

- Understanding of the Electronics Manufacturing Process
- Understanding of the English language, oral and written

# **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

#### **TOPICS COVERED DAYS 1-4**

**MODULE 1:** Foreword, Applicable Documents and Handling (Mandatory for all CIS participants)

MODULE 2: Soldering and High Voltage

**MODULE 3:** Component Damage & Printed Board Assemblies

MODULE 4: Terminal Connections (Recommended Module 2)

**MODULE 5:** Through-Hole Technology (including Jumper Wires) (Recommended Modules 2 & 3)

**MODULE 6:** Surface Mount Assemblies (including Jumper Wires) (Recommended Modules 2 & 3)

MODULE 7: Hardware

INSTRUCTOR/STUDENT CONFERENCE (as needed)

# 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 a practical 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