



### 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 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

## Schaumburg, Illinois

Please contact us for additional locations and on-site training opportunities in your area.

### IPC-A-610 Certified IPC Trainer

Become certified to train your workforce to identify accept/reject criteria for all three classes of assembly production.

Jan 20 - 23  
Apr 13 - 16  
Jul 27 - 30  
Nov 30 - Dec 3

#### Recertifications (Req. 24 mos.)

Jan 27 - 28  
Apr 6 - 7  
Aug 24 - 25  
Nov 3 - 4

### IPC-A-610 Certified IPC Specialist

Learn the accept/reject criteria for all three classes of assembly production as published in the most widely used inspection specification, IPC-A-610.

Jan 20 - 22  
Apr 13 - 15  
Jul 27 - 29  
Nov 30 - Dec 2

#### Recertifications (Req. 24 mos.)

Jan 20 - 22  
Apr 13 - 15  
Jul 27 - 29  
Nov 30 - Dec 2

### IPC-A-610 Standard Expert

Become a subject matter expert in IPC-A-610.

Jan 20 - 23  
Apr 13 - 16  
Jul 27 - 30  
Nov 30 - Dec 3

### Interactive PCB Inspection Lab (optional)

Hands-on inspection of real PCB assemblies and application of accept/reject criteria.

Jan 24  
Apr 17  
Jul 31  
Dec 4

### J-STD-001 Certified IPC Trainer

Acquire the skills, instructional materials and industry certification to deliver IPC's J-STD-001 Operator Training program.

Feb 3 - 7  
Jun 15 - 19  
Sep 14 - 18  
Nov 9 - 13

#### Recertifications (Req. 24 mos.)

Jan 29 - 30  
Apr 8 - 9  
Aug 26 - 27  
Nov 5 - 6

### J-STD-001 Certified IPC Specialist

Interpret the J-STD-001 specification in 5 one-day modules: Theory, Wires & Terminals, Through-Hole, Surface Mount and Inspection

Feb 3 - 7  
Jun 15 - 19  
Sep 14 - 18  
Nov 9 - 13

#### Recertifications (Req. 24 mos.)

Feb 3 - 7  
Jun 15 - 19  
Sep 14 - 18  
Nov 9 - 13

### J-STD-001 Standard Expert

Become a subject matter expert in J-STD-001.

Feb 3 - 7  
Jun 15 - 19  
Sep 14 - 18  
Nov 9 - 13

### IPC-A-620 Certified IPC Trainer

Become an expert in the quality standards of Wire, Cable and Harness, and be certified for inspection and instruction.

Jan 14 - 17  
Apr 20 - 23  
Jul 13 - 16  
Oct 19 - 22  
Dec 7 - 10

#### Recertifications (Req. 24 mos.)

Feb 25 - 26  
Jun 24 - 25  
Aug 31 - Sep 1

### IPC-A-620 Certified IPC Specialist

Learn assembly requirements and accept/reject criteria for all three classes of cable and wire harness assembly.

Jan 14 - 17  
Apr 20 - 23  
Jul 13 - 16  
Oct 19 - 22  
Dec 7 - 10

#### Recertifications (Req. 24 mos.)

Jan 14 - 17  
Apr 20 - 23  
Jul 13 - 16  
Oct 19 - 22  
Dec 7 - 10

### IPC-A-620 Standard Expert

Become a subject matter expert in IPC-A-620.

Jan 14 - 17  
Apr 20 - 23  
Jul 13 - 16  
Oct 19 - 22  
Dec 7 - 10

### IPC-A-620 Hands On Labs (optional)

Additional day of hands-on labs in which students perform necessary procedures for building an entire wire harness assembly

Apr 24  
Jul 17  
Oct 23  
Dec 11

### IPC-7711/7721 Certified IPC Trainer

Become qualified to instruct operators in the required knowledge and skills for component rework and bare board repair.

Mar 9 - 13  
Jun 8 - 12  
Oct 26 - 30

#### Recertifications (Req. 24 mos.)

Feb 27 - 28  
Jun 22 - 23  
Sep 2 - 3  
Dec 14 - 15

### IPC-7711/7721 Certified IPC Specialist

Learn general requirements and practice damage-free removal and replacement techniques for wires and terminals, through-hole components and surface mount components. Develop advanced skills for repairing PWBs, including conductor/land repair, lifted conductor/land/lead repair and base material.

Mar 9 - 13  
Jun 8 - 12  
Oct 26 - 30

#### Recertifications (Req. 24 mos.)

Feb 27 - 28  
Jun 22 - 23  
Sep 2 - 3  
Dec 14 - 15

### IPC-7711/7721 Standard Expert

Become a subject matter expert in IPC-7711 and IPC-7721.

Mar 9 - 13  
Jun 8 - 12  
Oct 26 - 30

### IPC-A-600 Certified IPC Trainer

Become an expert in the quality standards of printed circuit boards and be certified for inspection and instruction.

Jan 8 - 10  
Jul 20 - 22

#### Recertifications (Req. 24 mos.)

Jan 8 - 10  
Jul 20 - 22

### IPC-A-600 Certified IPC Specialist

Learn quality standards of PCBs and be certified for inspection of bare boards.

Jan 8 - 10  
Jul 20 - 22

#### Recertifications (Req. 24 mos.)

Jan 8 - 10  
Jul 20 - 22

### IPC-A-600 Standard Expert

Become a subject matter expert in IPC-A-600.

Jan 8 - 10  
Jul 20 - 22

Dates and locations are subject to change. Please call to check current dates and availability. Minimum enrollments are required for a class to be held.



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### IPC-6012 Certified IPC Specialist

Learn about the design, specifications, fabrication and inspection of printed circuit boards.

May 18 - 21  
Oct 13 - 16

### Recertifications (Req. 24 mos.)

May 18 - 21  
Oct 13 - 16

### IPC Certified Interconnect Designer

This course goes beyond the fundamentals of component placement and track routing to encompass a complete understanding of all the elements that go into the development of a printed circuit board.

Apr 28 - May 1

### IPC Advanced Certified Interconnect Designer

This course delves into design and fabrication issues that go beyond the fundamentals of layout, component placement and routing consideration to understanding fabrication materials, testing of not only electrical, but physical aspects of boards, electrical and signaling issues, complex component mounting strategies and requirements, and fabrication considerations for high end circuitry.

Sep 22 - 25

### IDEA Counterfeit Component Workshop

A basic introduction to Counterfeit Mitigation and to IDEA-STD-1010, including methods for the visual detection of counterfeit and substandard characteristics through a hands-on workshop. A unique opportunity to examine real components with live, on-site microscopic magnification to obtain experience in the visual inspection techniques of IDEA-STD-1010 and learn how to detect counterfeit components firsthand.

Mar 18

### IDEA-STD-1010 Essentials

Develop an in-depth knowledge of the IDEA-STD-1010 "Acceptability of Electronic Components Distributed in the Open Market" standard and a thorough understanding of its contents, application and use in the component inspection counterfeit detection process.

Sep 28 - 29

### Hand Soldering Certification

Introduces the basics of soldering, terms & definitions and equipment familiarization. Wires and Terminals, and Through-Hole Soldering and Rework is taught through hands-on construction and inspection of two Through-Hole boards. Students learn the accept/reject criteria for Surface Mount Assembly and Rework first hand through the construction, inspection and rework of a surface mount board.

#### Lead and Lead-free included.

Feb 10 - 14  
Mar 23 - 27  
May 4 - 8  
Aug 10 - 14  
Nov 16 - 20

### Recertifications

Apr 10  
Nov 2

### Advanced Micro Hand Soldering Certification

Mar 16 - 17  
Jun 29 - 30  
Sep 30 - Oct 1  
Dec 16 - 17

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