



### 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

## Minneapolis, MN

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

### IPC-A-610 Certified IPC Trainer (CIT)

Feb 27 - Mar 1  
May 20 - 23  
Aug 19 - 22  
Nov 4 - 7

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

Jan 22 - 23  
May 14 - 15  
Aug 13 - 14  
Nov 18 - 19

### IPC-A-610 Certified IPC Specialist (CIS)

Feb 27 - 29  
May 20 - 22  
Aug 19 - 21  
Nov 4 - 6

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

Feb 27 - 29  
May 20 - 22  
Aug 19 - 21  
Nov 4 - 6

### IPC-A-610 Certified Standards Expert (CSE)

Feb 27 - Mar 1  
May 20 - 23  
Aug 19 - 22  
Nov 4 - 7

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

Jan 22 - 23  
May 14 - 15  
Aug 13 - 14  
Nov 18 - 19

### IPC-A-610 Interactive PCB Inspection Lab (CIT or CIS Option)

Nov 8

### J-STD-001 Certified IPC Trainer (CIT)

Mar 18 - 22  
Jun 17 - 21  
Sep 23 - 27

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

Jan 24 - 25  
May 16 - 17  
Aug 15 - 16  
Nov 20 - 21

### J-STD-001 Certified IPC Specialist (CIS)

Mar 18 - 22  
Jun 17 - 21  
Sep 23 - 27

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

Mar 18 - 22  
Jun 17 - 21  
Sep 23 - 27

### J-STD-001 Certified Standards Expert (CSE)

Mar 18 - 22  
Jun 17 - 21  
Sep 23 - 27

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

Jan 24 - 25  
May 16 - 17  
Aug 15 - 16  
Nov 20 - 21

### IPC-A-620 Certified IPC Trainer (CIT)

Apr 1 - 4  
Jun 10 - 13  
Sep 9 - 12  
Dec 3 - 6

### IPC-A-620 Certified IPC Specialist (CIS)

Apr 1 - 4  
Jun 10 - 13  
Sep 9 - 12  
Dec 3 - 6

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

Apr 1 - 4  
Jun 10 - 13  
Sep 9 - 12  
Dec 3 - 6

### IPC-A-620 Certified Standards Expert (CSE)

Apr 1 - 4  
Jun 10 - 13  
Sep 9 - 12  
Dec 3 - 6

### IPC-A-620 Hands-on Labs

Apr 5  
Jun 14

### IPC-7711/7721 Certified IPC Trainer (CIT)

Apr 22 - 26  
Dec 9 - 13

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

Mar 21 - 22  
Jul 22 - 23

### IPC-7711/7721 Certified IPC Specialist (CIS)

Apr 22 - 26  
Dec 9 - 13

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

Mar 21 - 22  
Jul 22 - 23

### IPC-7711/7721 Certified Standards Expert (CSE)

Apr 22 - 26  
Dec 9 - 13

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

Mar 21 - 22  
Jul 22 - 23

### Hand Soldering Certification

Jan 29 - Feb 2  
Mar 25 - 29  
May 6 - 10  
Aug 5 - 9  
Oct 21 - 25

To view all of the available classes, please see our Master Schedule and On-Line Schedule.

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.