



### 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 28 - Mar 3  
May 22 - 25  
Aug 21 - 24  
Nov 6 - 9

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

Jan 24 - 25  
May 16 - 17  
Aug 15 - 16  
Nov 13 - 14

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

Feb 28 - Mar 3  
May 22 - 25  
Aug 21 - 24  
Nov 6 - 9

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

Jan 24 - 25  
May 16 - 17  
Aug 15 - 16  
Nov 13 - 14

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

Nov 10

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

Mar 27 - 31  
Jun 26 - 30  
Sep 25 - 29

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

Jan 26 - 27  
May 18 - 19  
Aug 17 - 18  
Nov 15 - 16

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

Mar 27 - 31  
Jun 26 - 30  
Sep 25 - 29

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

Jan 26 - 27  
May 18 - 19  
Aug 17 - 18  
Nov 15 - 16

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

Apr 24 - 27  
Jun 12 - 15  
Sep 11 - 14  
Dec 5 - 8

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

Apr 24 - 27  
Jun 12 - 15  
Sep 11 - 14  
Dec 5 - 8

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

Apr 28  
Jun 16

### IPC-A-600 Certified IPC Trainer (CIT)

See On-Line Class Schedule

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

See On-Line Class Schedule

### IPC-A-600 Certified IPC Specialist (CIS)

See On-Line Class Schedule

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

See On-Line Class Schedule

### IPC-A-600 Certified Standards Expert (CSE)

See On-Line Class Schedule

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

See On-Line Class Schedule

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

Jan 30 - Feb 3  
May 8 - 12  
Dec 11 - 15

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

Mar 23 - 24  
Jul 24 - 25

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

Jan 30 - Feb 3  
May 8 - 12  
Dec 11 - 15

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

Mar 23 - 24  
Jul 24 - 25

### Hand Soldering Certification

Feb 20 - 24  
Apr 17 - 21  
Aug 7 - 11  
Oct 23 - 27

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.

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