



### 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

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

### IPC-A-610 "The Acceptability of Electronic Assemblies"

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

#### IPC-A-610 CIT Certification

Jan 16 - 19 ... Toronto, ON	Jul 24 - 27 ... San Diego, CA
Jan 16 - 19 ... Buffalo, NY	Jul 24 - 27 ... Schaumburg, IL
Jan 16 - 19 ... Watertown, CT	Jul 31 - Aug 3 ... Toronto, ON
Jan 23 - 26 ... Schaumburg, IL	Aug 7 - 10 ... Portland, OR
Jan 24 - 27 ... Pittsburgh, PA	Aug 7 - 10 ... San Jose, CA
Jan 30 - Feb 2 ... Palm Bay, FL	Aug 21 - 24 ... Manchester, NH
Jan 30 - Feb 2 ... Portland, OR	Aug 21 - 24 ... Minneapolis, MN
Jan 30 - Feb 2 ... San Diego, CA	Aug 21 - 24 ... Seattle, WA
Feb 6 - 9 ... Kansas City, MO	Aug 28 - 31 ... Anaheim, CA
Feb 13 - 16 ... San Jose, CA	Sep 18 - 21 ... Rochester, NY
Feb 20 - 23 ... Anaheim, CA	Sep 18 - 21 ... San Diego, CA
Feb 20 - 23 ... Manchester, NH	Oct 9 - 12 ... Watertown, CT
Feb 28 - Mar 3 ... Minneapolis, MN	Oct 16 - 19 ... Buffalo, NY
Feb 28 - Mar 3 ... Rochester, NY	Oct 16 - 19 ... San Jose, CA
Mar 6 - 9 ... Seattle, WA	Oct 16 - 19 ... Seattle, WA
Mar 20 - 23 ... Toronto, ON	Oct 23 - 26 ... Long Island, NY
Mar 20 - 23 ... Schaumburg, IL	Oct 23 - 26 ... Manchester, NH
Mar 27 - 30 ... Long Island, NY	Oct 23 - 26 ... Schaumburg, IL
Apr 3 - 6 ... Ottawa, ON	Oct 30 - Nov 2 ... Kansas City, MO
Apr 10 - 13 ... Binghamton, NY	Oct 30 - Nov 2 ... Toronto, ON
Apr 10 - 13 ... Manchester, NH	Nov 6 - 9 ... Minneapolis, MN
Apr 10 - 13 ... Portland, OR	Nov 6 - 9 ... Palm Bay, FL
Apr 10 - 13 ... San Diego, CA	Nov 13 - 16 ... Akron, OH
Apr 17 - 20 ... San Jose, CA	Nov 13 - 16 ... Portland, OR
Apr 17 - 20 ... Schaumburg, IL	Nov 20 - 23 ... Ottawa, ON
Apr 24 - 27 ... Palm Bay, FL	Dec 4 - 7 ... Binghamton, NY
Apr 24 - 27 ... Watertown, CT	Dec 4 - 7 ... Pittsburgh, PA
May 8 - 11 ... Rochester, NY	Dec 11 - 14 ... Anaheim, CA
May 8 - 11 ... Seattle, WA	Dec 11 - 14 ... Manchester, NH
May 22 - 25 ... Anaheim, CA	Dec 18 - 21 ... San Jose, CA
May 22 - 25 ... Minneapolis, MN	
May 30 - Jun 2 ... Buffalo, NY	

#### ON-LINE Start time: 10am E.S.T.

Jan 9 - 12	Jul 17 - 20
Jan 30 - Feb 2	Aug 7 - 10
Feb 20 - 23	Aug 28 - 31
Mar 13 - 16	Sep 18 - 21
Apr 3 - 6	Oct 9 - 12
Apr 24 - 27	Oct 30 - Nov 2
May 15 - 18	Nov 27 - 30
Jun 5 - 8	Dec 18 - 21
Jun 26 - 29	

#### Challenge Test

##### IN-PERSON Manchester, NH

Jan 12	Aug 11
Feb 17	Sep 15
Mar 10	Oct 13
Apr 14	Nov 10
May 12	Dec 1
Jul 5	

##### ON-LINE Start time: 10am E.S.T.

Jan 11	May 17	Sep 20
Jan 25	May 31	Oct 4
Feb 8	Jun 14	Oct 18
Feb 22	Jun 28	Nov 1
Mar 8	Jul 12	Nov 15
Mar 22	Jul 26	Nov 29
Apr 5	Aug 9	Dec 13
Apr 19	Aug 23	Dec 27
May 3	Sep 6	

### ALSO AVAILABLE

#### IPC-A-610 Interactive PCB Inspection Lab

##### IPC-A-610 "The Acceptability of Electronic Assemblies"

Utilizes, lectures, visual acuity exercises, and physical assemblies to provide an experience in visually inspecting printed circuit assemblies.

#### IPC-A-610 CIT Recertification

Jan 3 - 4 ... Manchester, NH	Jul 17 - 18 ... Anaheim, CA
Jan 9 - 10 ... Palm Bay, FL	Jul 31 - Aug 1 ... Rochester, NY
Jan 16 - 17 ... Kansas City, MO	Aug 1 - 2 ... Portland, OR
Jan 16 - 17 ... San Diego, CA	Aug 7 - 8 ... Buffalo, NY
Jan 23 - 24 ... Anaheim, CA	Aug 7 - 8 ... Watertown, CT
Jan 24 - 25 ... Minneapolis, MN	Aug 8 - 9 ... Toronto, ON
Jan 24 - 25 ... Rochester, NY	Aug 14 - 15 ... San Jose, CA
Jan 30 - 31 ... Long Island, NY	Aug 15 - 16 ... Minneapolis, MN
Jan 30 - 31 ... Schaumburg, IL	Aug 28 - 29 ... Schaumburg, IL
Feb 6 - 7 ... San Jose, CA	Aug 29 - 30 ... Kansas City, MO
Feb 13 - 14 ... Binghamton, NY	Sep 5 - 6 ... Binghamton, NY
Feb 20 - 21 ... Seattle, WA	Sep 5 - 6 ... Manchester, NH
Feb 20 - 21 ... Watertown, CT	Sep 19 - 20 ... Palm Bay, FL
Feb 28 - Mar 1 ... Akron, OH	Sep 25 - 26 ... Rochester, NY
Mar 6 - 7 ... Toronto, ON	Oct 9 - 10 ... Manchester, NH
Mar 13 - 14 ... Manchester, NH	Oct 9 - 10 ... San Diego, CA
Mar 28 - 29 ... Ottawa, ON	Oct 10 - 11 ... Buffalo, NY
Apr 4 - 5 ... Buffalo, NY	Oct 23 - 24 ... Seattle, WA
Apr 10 - 11 ... Schaumburg, IL	Oct 30 - 31 ... San Jose, CA
Apr 24 - 25 ... San Jose, CA	Nov 6 - 7 ... Watertown, CT
May 1 - 2 ... Rochester, NY	Nov 7 - 8 ... Schaumburg, IL
May 3 - 4 ... Palm Bay, FL	Nov 13 - 14 ... Manchester, NH
May 8 - 9 ... Manchester, NH	Nov 13 - 14 ... Minneapolis, MN
May 15 - 16 ... Toronto, ON	Nov 13 - 14 ... Toronto, ON

#### ON-LINE Start time: 10am E.S.T.

Jan 3 - 4	Jul 10 - 11
Feb 13 - 14	Aug 7 - 8
Mar 6 - 7	Sep 7 - 8
Apr 17 - 18	Oct 16 - 17
May 8 - 9	Nov 20 - 21
Jun 1 - 2	Dec 11 - 12

#### Challenge Test

##### IN-PERSON Manchester, NH

Jan 12	Aug 11
Feb 17	Sep 15
Mar 10	Oct 13
Apr 14	Nov 10
May 12	Dec 1
Jul 5	

##### ON-LINE Start time: 10am E.S.T.

Jan 11	May 17	Sep 20
Jan 25	May 31	Oct 4
Feb 8	Jun 14	Oct 18
Feb 22	Jun 28	Nov 1
Mar 8	Jul 12	Nov 15
Mar 22	Jul 26	Nov 29
Apr 5	Aug 9	Dec 13
Apr 19	Aug 23	Dec 27
May 3	Sep 6	

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.



### 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 Specialist (CIS)

### IPC-A-610 "The Acceptability of Electronic Assemblies"

Learn accept/reject criteria for all 3 classes of assembly production as published in the most widely used inspection specification, IPC-A-610.

#### IPC-A-610 CIS Certification

Jan 9 - 11 ... Manchester, NH  
 Jan 9 - 11 ... Atlanta, GA  
 Jan 16 - 18 ... Toronto, ON  
 Jan 16 - 18 ... Buffalo, NY  
 Jan 16 - 18 ... Watertown, CT  
 Jan 23 - 25 ... Schaumburg, IL  
 Jan 24 - 26 ... Pittsburgh, PA  
 Jan 30 - Feb 1 ... Palm Bay, FL  
 Jan 30 - Feb 1 ... Portland, OR  
 Jan 30 - Feb 1 ... San Diego, CA  
 Feb 6 - 8 ... Kansas City, MO  
 Feb 13 - 15 ... Manchester, NH  
 Feb 13 - 15 ... San Jose, CA  
 Feb 20 - 22 ... Anaheim, CA  
 Feb 28 - Mar 2 ... Rochester, NY  
 Mar 6 - 8 ... Manchester, NH  
 Mar 6 - 8 ... Seattle, WA  
 Mar 13 - 15 ... Syracuse, NY  
 Mar 20 - 22 ... Schaumburg, IL  
 Mar 20 - 22 ... Toronto, ON  
 Mar 27 - 29 ... Long Island, NY  
 Mar 27 - 29 ... Manchester, NH  
 Apr 3 - 5 ... Ottawa, ON  
 Apr 10 - 12 ... Atlanta, GA  
 Apr 10 - 12 ... Binghamton, NY  
 Apr 10 - 12 ... Portland, OR  
 Apr 10 - 12 ... San Diego, CA  
 Apr 17 - 19 ... Manchester, NH  
 Apr 17 - 19 ... San Jose, CA  
 Apr 17 - 19 ... Schaumburg, IL  
 Apr 24 - 26 ... Palm Bay, FL  
 Apr 24 - 26 ... Watertown, CT  
 May 8 - 10 ... Manchester, NH  
 May 8 - 10 ... Rochester, NY  
 May 8 - 10 ... Seattle, WA  
 May 22 - 24 ... Anaheim, CA  
 May 29 - 31 ... Manchester, NH  
 May 30 - Jun 1 ... Buffalo, NY  
 Jun 6 - 8 ... Halifax, NS  
 Jun 12 - 14 ... Long Island, NY  
 Jun 12 - 14 ... Pittsburgh, PA  
 Jun 19 - 21 ... Kansas City, MO  
 Jun 19 - 21 ... Manchester, NH  
 Jun 19 - 21 ... San Jose, CA  
 Jun 19 - 21 ... Syracuse, NY  
 Jul 10 - 12 ... Akron, OH  
 Jul 10 - 12 ... Manchester, NH  
 Jul 17 - 19 ... Atlanta, GA

Jul 17 - 19 ... Palm Bay, FL  
 Jul 17 - 19 ... Watertown, CT  
 Jul 24 - 26 ... San Diego, CA  
 Jul 24 - 26 ... Schaumburg, IL  
 Jul 31 - Aug 2 ... Manchester, NH  
 Jul 31 - Aug 2 ... Toronto, ON  
 Aug 7 - 9 ... Portland, OR  
 Aug 7 - 9 ... San Jose, CA  
 Aug 14 - 16 ... Manchester, NH  
 Aug 21 - 23 ... Seattle, WA  
 Aug 28 - 30 ... Anaheim, CA  
 Sep 5 - 7 ... Manchester, NH  
 Sep 12 - 14 ... Syracuse, NY  
 Sep 18 - 20 ... Rochester, NY  
 Sep 18 - 20 ... San Diego, CA  
 Sep 25 - 27 ... Manchester, NH  
 Oct 9 - 11 ... Atlanta, GA  
 Oct 9 - 11 ... Watertown, CT  
 Oct 16 - 18 ... Buffalo, NY  
 Oct 16 - 18 ... Manchester, NH  
 Oct 16 - 18 ... San Jose, CA  
 Oct 16 - 18 ... Seattle, WA  
 Oct 23 - 25 ... Long Island, NY  
 Oct 23 - 25 ... Schaumburg, IL  
 Oct 30 - Nov 1 ... Kansas City, MO  
 Oct 30 - Nov 1 ... Toronto, ON  
 Nov 6 - 8 ... Manchester, NH  
 Nov 6 - 8 ... Palm Bay, FL  
 Nov 13 - 15 ... Akron, OH  
 Nov 13 - 15 ... Portland, OR  
 Nov 20 - 22 ... Ottawa, ON  
 Nov 28 - 30 ... Manchester, NH  
 Dec 4 - 6 ... Binghamton, NY  
 Dec 4 - 6 ... Pittsburgh, PA  
 Dec 11 - 13 ... Anaheim, CA  
 Dec 18 - 20 ... San Jose, CA

#### ON-LINE Start time: 10am E.S.T.

Jan 9 - 11 Jul 17 - 19  
 Jan 30 - Feb 1 Aug 7 - 9  
 Feb 20 - 22 Aug 28 - 30  
 Mar 13 - 15 Sep 18 - 20  
 Apr 3 - 5 Oct 9 - 11  
 Apr 24 - 26 Oct 30 - Nov 1  
 May 15 - 17 Nov 27 - 29  
 Jun 5 - 7 Dec 18 - 20  
 Jun 26 - 28

#### Challenge Test

##### IN-PERSON Manchester, NH

Jan 12 Aug 11  
 Feb 17 Sep 15  
 Mar 10 Oct 13  
 Apr 14 Nov 10  
 May 12 Dec 1  
 Jul 5

##### ON-LINE Start time: 10am E.S.T.

Jan 11 May 17 Sep 20  
 Jan 25 May 31 Oct 4  
 Feb 8 Jun 14 Oct 18  
 Feb 22 Jun 28 Nov 1  
 Mar 8 Jul 12 Nov 15  
 Mar 22 Jul 26 Nov 29  
 Apr 5 Aug 9 Dec 13  
 Apr 19 Aug 23 Dec 27  
 May 3 Sep 6

#### IPC-A-610 CIS Recertification

Jan 9 - 11 ... Manchester, NH  
 Jan 9 - 11 ... Atlanta, GA  
 Jan 16 - 18 ... Toronto, ON  
 Jan 16 - 18 ... Buffalo, NY  
 Jan 16 - 18 ... Watertown, CT  
 Jan 23 - 25 ... Schaumburg, IL  
 Jan 23 - 25 ... Manchester, NH  
 Jan 24 - 26 ... Pittsburgh, PA  
 Jan 30 - Feb 1 ... Palm Bay, FL  
 Jan 30 - Feb 1 ... Portland, OR  
 Jan 30 - Feb 1 ... San Diego, CA  
 Feb 6 - 8 ... Kansas City, MO  
 Feb 13 - 15 ... Manchester, NH  
 Feb 13 - 15 ... San Jose, CA  
 Feb 20 - 22 ... Anaheim, CA  
 Feb 28 - Mar 2 ... Rochester, NY  
 Mar 6 - 8 ... Manchester, NH  
 Mar 6 - 8 ... Seattle, WA  
 Mar 13 - 15 ... Syracuse, NY  
 Mar 20 - 22 ... Schaumburg, IL  
 Mar 20 - 22 ... Toronto, ON  
 Mar 27 - 29 ... Long Island, NY  
 Mar 27 - 29 ... Manchester, NH  
 Apr 3 - 5 ... Ottawa, ON  
 Apr 10 - 12 ... Atlanta, GA  
 Apr 10 - 12 ... Binghamton, NY  
 Apr 10 - 12 ... Portland, OR  
 Apr 10 - 12 ... San Diego, CA  
 Apr 17 - 19 ... Manchester, NH  
 Apr 17 - 19 ... San Jose, CA  
 Apr 17 - 19 ... Schaumburg, IL  
 Apr 24 - 26 ... Palm Bay, FL  
 Apr 24 - 26 ... Watertown, CT  
 May 8 - 10 ... Rochester, NY  
 May 8 - 10 ... Seattle, WA  
 May 22 - 24 ... Anaheim, CA  
 May 29 - 31 ... Manchester, NH  
 May 30 - Jun 1 ... Buffalo, NY  
 Jun 6 - 8 ... Halifax, NS  
 Jun 12 - 14 ... Long Island, NY  
 Jun 12 - 14 ... Pittsburgh, PA  
 Jun 19 - 21 ... Kansas City, MO  
 Jun 19 - 21 ... Manchester, NH  
 Jun 19 - 21 ... San Jose, CA  
 Jun 19 - 21 ... Syracuse, NY  
 Jun 26 - 28 ... Baltimore, MD  
 Jul 10 - 12 ... Akron, OH  
 Jul 10 - 12 ... Manchester, NH

Jul 17 - 19 ... Atlanta, GA  
 Jul 17 - 19 ... Palm Bay, FL  
 Jul 17 - 19 ... Watertown, CT  
 Jul 24 - 26 ... San Diego, CA  
 Jul 24 - 26 ... Schaumburg, IL  
 Jul 31 - Aug 2 ... Manchester, NH  
 Jul 31 - Aug 2 ... Toronto, ON  
 Aug 7 - 9 ... Portland, OR  
 Aug 7 - 9 ... San Jose, CA  
 Aug 14 - 16 ... Manchester, NH  
 Aug 21 - 23 ... Seattle, WA  
 Aug 28 - 30 ... Anaheim, CA  
 Sep 5 - 7 ... Manchester, NH  
 Sep 12 - 14 ... Syracuse, NY  
 Sep 18 - 20 ... Rochester, NY  
 Sep 18 - 20 ... San Diego, CA  
 Sep 25 - 27 ... Manchester, NH  
 Oct 9 - 11 ... Atlanta, GA  
 Oct 9 - 11 ... Watertown, CT  
 Oct 16 - 18 ... Buffalo, NY  
 Oct 16 - 18 ... Manchester, NH  
 Oct 16 - 18 ... San Jose, CA  
 Oct 16 - 18 ... Seattle, WA  
 Oct 23 - 25 ... Long Island, NY  
 Oct 23 - 25 ... Schaumburg, IL  
 Oct 30 - Nov 1 ... Kansas City, MO  
 Oct 30 - Nov 1 ... Toronto, ON  
 Nov 6 - 8 ... Manchester, NH  
 Nov 6 - 8 ... Palm Bay, FL  
 Nov 13 - 15 ... Akron, OH  
 Nov 13 - 15 ... Portland, OR  
 Nov 20 - 22 ... Ottawa, ON  
 Nov 28 - 30 ... Manchester, NH  
 Dec 4 - 6 ... Binghamton, NY  
 Dec 4 - 6 ... Pittsburgh, PA  
 Dec 11 - 13 ... Anaheim, CA  
 Dec 18 - 20 ... San Jose, CA

#### ON-LINE Start time: 10am E.S.T.

Jan 9 - 11 Jul 17 - 19  
 Jan 30 - Feb 1 Aug 7 - 9  
 Feb 20 - 22 Aug 28 - 30  
 Mar 13 - 15 Sep 18 - 20  
 Apr 3 - 5 Oct 9 - 11  
 Apr 24 - 26 Oct 30 - Nov 1  
 May 15 - 17 Nov 27 - 29  
 Jun 5 - 7 Dec 18 - 20  
 Jun 26 - 28

#### Challenge Test

##### IN-PERSON Manchester, NH

Jan 12 Aug 11  
 Feb 17 Sep 15  
 Mar 10 Oct 13  
 Apr 14 Nov 10  
 May 12 Dec 1  
 Jul 5

##### ON-LINE Start time: 10am E.S.T.

Jan 11 May 17 Sep 20  
 Jan 25 May 31 Oct 4  
 Feb 8 Jun 14 Oct 18  
 Feb 22 Jun 28 Nov 1  
 Mar 8 Jul 12 Nov 15  
 Mar 22 Jul 26 Nov 29  
 Apr 5 Aug 9 Dec 13  
 Apr 19 Aug 23 Dec 27  
 May 3 Sep 6

### IPC-A-610 Interactive PCB Inspection Lab ALSO AVAILABLE

#### IPC-A-610 "The Acceptability of Electronic Assemblies"

Utilizes, lectures, visual acuity exercises, and physical assemblies to provide an experience in visually inspecting printed circuit assemblies.



### 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 Standards Expert (CSE)

### IPC-A-610 "The Acceptability of Electronic Assemblies"

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

#### IPC-A-610 CSE Certification

Jan 16 - 19 ... Toronto, ON	Jul 31 - Aug 3 ... Toronto, ON
Jan 16 - 19 ... Buffalo, NY	Aug 7 - 10 ... Portland, OR
Jan 16 - 19 ... Watertown, CT	Aug 7 - 10 ... San Jose, CA
Jan 23 - 26 ... Schaumburg, IL	Aug 21 - 24 ... Manchester, NH
Jan 24 - 27 ... Pittsburgh, PA	Aug 21 - 24 ... Minneapolis, MN
Jan 30 - Feb 2 ... Palm Bay, FL	Aug 21 - 24 ... Seattle, WA
Jan 30 - Feb 2 ... Portland, OR	Aug 28 - 31 ... Anaheim, CA
Jan 30 - Feb 2 ... San Diego, CA	Sep 18 - 21 ... Rochester, NY
Feb 6 - 9 ... Kansas City, MO	Sep 18 - 21 ... San Diego, CA
Feb 13 - 16 ... San Jose, CA	Oct 9 - 12 ... Watertown, CT
Feb 20 - 23 ... Anaheim, CA	Oct 16 - 19 ... Buffalo, NY
Feb 20 - 23 ... Manchester, NH	Oct 16 - 19 ... San Jose, CA
Feb 28 - Mar 3 ... Minneapolis, MN	Oct 16 - 19 ... Seattle, WA
Feb 28 - Mar 3 ... Rochester, NY	Oct 23 - 26 ... Long Island, NY
Mar 6 - 9 ... Seattle, WA	Oct 23 - 26 ... Manchester, NH
Mar 20 - 23 ... Schaumburg, IL	Oct 23 - 26 ... Schaumburg, IL
Mar 20 - 23 ... Toronto, ON	Oct 30 - Nov 2 ... Kansas City, MO
Mar 27 - 30 ... Long Island, NY	Oct 30 - Nov 2 ... Toronto, ON
Apr 3 - 6 ... Ottawa, ON	Nov 6 - 9 ... Minneapolis, MN
Apr 10 - 13 ... Binghamton, NY	Nov 6 - 9 ... Palm Bay, FL
Apr 10 - 13 ... Manchester, NH	Nov 13 - 16 ... Akron, OH
Apr 10 - 13 ... Portland, OR	Nov 13 - 16 ... Portland, OR
Apr 10 - 13 ... San Diego, CA	Nov 20 - 23 ... Ottawa, ON
Apr 17 - 20 ... San Jose, CA	Dec 4 - 7 ... Binghamton, NY
Apr 17 - 20 ... Schaumburg, IL	Dec 4 - 7 ... Pittsburgh, PA
Apr 24 - 27 ... Palm Bay, FL	Dec 11 - 14 ... Anaheim, CA
Apr 24 - 27 ... Watertown, CT	Dec 11 - 14 ... Manchester, NH
May 8 - 11 ... Rochester, NY	Dec 18 - 21 ... San Jose, CA
May 8 - 11 ... Seattle, WA	

#### ON-LINE Start time: 10am E.S.T.

Jan 9 - 12	Jul 17 - 20
Jan 30 - Feb 2	Aug 7 - 10
Feb 20 - 23	Aug 28 - 31
Mar 13 - 16	Sep 18 - 21
Apr 3 - 6	Oct 9 - 12
Apr 24 - 27	Oct 30 - Nov 2
May 15 - 18	Nov 27 - 30
Jun 5 - 8	Dec 18 - 21
Jun 26 - 29	

#### Challenge Test

##### IN-PERSON Manchester, NH

Jan 12	Aug 11
Feb 17	Sep 15
Mar 10	Oct 13
Apr 14	Nov 10
May 12	Dec 1
Jul 5	

##### ON-LINE Start time: 10am E.S.T.

Jan 11	May 17	Sep 20
Jan 25	May 31	Oct 4
Feb 8	Jun 14	Oct 18
Feb 22	Jun 28	Nov 1
Mar 8	Jul 12	Nov 15
Mar 22	Jul 26	Nov 29
Apr 5	Aug 9	Dec 13
Apr 19	Aug 23	Dec 27
May 3	Sep 6	

#### ALSO AVAILABLE

#### IPC-A-610 Interactive PCB Inspection Lab

##### IPC-A-610 "The Acceptability of Electronic Assemblies"

Utilizes, lectures, visual acuity exercises, and physical assemblies to provide an experience in visually inspecting printed circuit assemblies.

#### IPC-A-610 CSE Recertification

Jan 3 - 4 ... Manchester, NH	Jul 17 - 18 ... Anaheim, CA
Jan 9 - 10 ... Palm Bay, FL	Jul 31 - Aug 1 ... Rochester, NY
Jan 16 - 17 ... Kansas City, MO	Aug 1 - 2 ... Portland, OR
Jan 16 - 17 ... San Diego, CA	Aug 7 - 8 ... Buffalo, NY
Jan 23 - 24 ... Anaheim, CA	Aug 7 - 8 ... Watertown, CT
Jan 24 - 25 ... Minneapolis, MN	Aug 8 - 9 ... Toronto, ON
Jan 24 - 25 ... Rochester, NY	Aug 14 - 15 ... San Jose, CA
Jan 30 - 31 ... Long Island, NY	Aug 15 - 16 ... Minneapolis, MN
Jan 30 - 31 ... Schaumburg, IL	Aug 28 - 29 ... Schaumburg, IL
Feb 6 - 7 ... San Jose, CA	Aug 29 - 30 ... Kansas City, MO
Feb 13 - 14 ... Binghamton, NY	Sep 5 - 6 ... Binghamton, NY
Feb 20 - 21 ... Seattle, WA	Sep 5 - 6 ... Manchester, NH
Feb 20 - 21 ... Watertown, CT	Sep 19 - 20 ... Palm Bay, FL
Feb 28 - Mar 1 ... Akron, OH	Sep 25 - 26 ... Rochester, NY
Mar 6 - 7 ... Toronto, ON	Oct 9 - 10 ... Manchester, NH
Mar 13 - 14 ... Manchester, NH	Oct 9 - 10 ... San Diego, CA
Mar 28 - 29 ... Ottawa, ON	Oct 10 - 11 ... Buffalo, NY
Apr 4 - 5 ... Buffalo, NY	Oct 23 - 24 ... Seattle, WA
Apr 10 - 11 ... Schaumburg, IL	Oct 30 - 31 ... San Jose, CA
Apr 24 - 25 ... San Jose, CA	Nov 6 - 7 ... Watertown, CT
May 1 - 2 ... Rochester, NY	Nov 7 - 8 ... Schaumburg, IL
May 3 - 4 ... Palm Bay, FL	Nov 13 - 14 ... Manchester, NH
May 8 - 9 ... Manchester, NH	Nov 13 - 14 ... Minneapolis, MN
May 15 - 16 ... Toronto, ON	Nov 13 - 14 ... Toronto, ON
May 15 - 16 ... Watertown, CT	
May 16 - 17 ... Minneapolis, MN	
Jun 5 - 6 ... San Jose, CA	
Jun 12 - 13 ... San Diego, CA	
Jun 19 - 20 ... Binghamton, NY	
Jun 26 - 27 ... Long Island, NY	
Jun 26 - 27 ... Seattle, WA	
Jul 10 - 11 ... Manchester, NH	

#### ON-LINE Start time: 10am E.S.T.

Jan 3 - 4	Jul 10 - 11
Feb 13 - 14	Aug 7 - 8
Mar 6 - 7	Sep 7 - 8
Apr 17 - 18	Oct 16 - 17
May 8 - 9	Nov 20 - 21
Jun 1 - 2	Dec 11 - 12

#### Challenge Test

##### IN-PERSON Manchester, NH

Jan 12	Aug 11
Feb 17	Sep 15
Mar 10	Oct 13
Apr 14	Nov 10
May 12	Dec 1
Jul 5	

##### ON-LINE Start time: 10am E.S.T.

Jan 11	May 17	Sep 20
Jan 25	May 31	Oct 4
Feb 8	Jun 14	Oct 18
Feb 22	Jun 28	Nov 1
Mar 8	Jul 12	Nov 15
Mar 22	Jul 26	Nov 29
Apr 5	Aug 9	Dec 13
Apr 19	Aug 23	Dec 27
May 3	Sep 6	

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.



### 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

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

### IPC-A-610 "The Acceptability of Electronic Assemblies"

Utilizes, lectures, visual acuity exercises, and physical assemblies to provide an experience in visually inspecting printed circuit assemblies.

#### IPC-A-610 Interactive Inspection Labs

Jan 20 . . . . .	Toronto, ON	Jul 21 . . . . .	Watertown, CT
Jan 20 . . . . .	Buffalo, NY	Jul 28 . . . . .	San Diego, CA
Jan 20 . . . . .	Watertown, CT	Jul 28 . . . . .	Schaumburg, IL
Jan 12 . . . . .	Manchester, NH	Aug 3 . . . . .	Manchester, NH
Jan 27 . . . . .	Schaumburg, IL	Aug 4 . . . . .	Toronto, ON
Feb 3 . . . . .	Portland, OR	Aug 11 . . . . .	Portland, OR
Feb 3 . . . . .	San Diego, CA	Aug 11 . . . . .	San Jose, CA
Feb 16 . . . . .	Manchester, NH	Aug 25 . . . . .	Manchester, NH
Feb 17 . . . . .	San Jose, CA	Sep 1 . . . . .	Anaheim, CA
Feb 24 . . . . .	Anaheim, CA	Sep 8 . . . . .	Manchester, NH
Mar 10 . . . . .	Seattle, WA	Sep 22 . . . . .	Rochester, NY
Mar 24 . . . . .	Toronto, ON	Sep 22 . . . . .	San Diego, CA
Mar 30 . . . . .	Manchester, NH	Oct 19 . . . . .	Manchester, NH
Mar 31 . . . . .	Long Island, NY	Oct 20 . . . . .	Buffalo, NY
Apr 7 . . . . .	Ottawa, ON	Oct 20 . . . . .	San Jose, CA
Apr 14 . . . . .	Portland, OR	Oct 27 . . . . .	Long Island, NY
Apr 20 . . . . .	Manchester, NH	Oct 27 . . . . .	Manchester, NH
Apr 21 . . . . .	San Jose, CA	Oct 27 . . . . .	Schaumburg, IL
Apr 21 . . . . .	Schaumburg, IL	Nov 3 . . . . .	Kansas City, MO
May 11 . . . . .	Manchester, NH	Nov 3 . . . . .	Toronto, ON
May 12 . . . . .	Rochester, NY	Nov 9 . . . . .	Manchester, NH
May 12 . . . . .	Seattle, WA	Nov 10 . . . . .	Minneapolis, MN
May 26 . . . . .	Anaheim, CA	Nov 17 . . . . .	Akron, OH
Jun 16 . . . . .	Pittsburgh, PA	Nov 17 . . . . .	Portland, OR
Jun 22 . . . . .	Manchester, NH	Nov 24 . . . . .	Ottawa, ON
Jun 23 . . . . .	Kansas City, MO	Dec 8 . . . . .	Pittsburgh, PA
Jun 23 . . . . .	San Jose, CA	Dec 15 . . . . .	Anaheim, CA
Jun 23 . . . . .	Syracuse, NY	Dec 15 . . . . .	Manchester, NH
Jul 13 . . . . .	Manchester, NH		

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.





### 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

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

### J-STD-001 "Requirements for Soldered Electrical & Electronic Assemblies"

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

#### J-STD-001 CIT Certification

Jan 9 - 13 . . . . . Buffalo, NY  
 Jan 9 - 13 . . . . . San Jose, CA  
 Jan 23 - 27 . . . . . Manchester, NH  
 Jan 30 - Feb 3 . . . . . Anaheim, CA  
 Jan 30 - Feb 3 . . . . . Rochester, NY  
 Jan 30 - Feb 3 . . . . . Toronto, ON  
 Feb 6 - 10 . . . . . Portland, OR  
 Feb 6 - 10 . . . . . Schaumburg, IL  
 Feb 13 - 17 . . . . . Watertown, CT  
 Feb 20 - 24 . . . . . San Diego, CA  
 Feb 27 - Mar 3 . . . . . Ottawa, ON  
 Feb 27 - Mar 3 . . . . . Palm Bay, FL  
 Mar 13 - 17 . . . . . Kansas City, MO  
 Mar 13 - 17 . . . . . Seattle, WA  
 Mar 13 - 17 . . . . . Watertown, CT  
 Mar 20 - 24 . . . . . San Jose, CA  
 Mar 27 - 31 . . . . . Manchester, NH  
 Mar 27 - 31 . . . . . Minneapolis, MN  
 Apr 10 - 14 . . . . . Buffalo, NY  
 Apr 17 - 21 . . . . . Anaheim, CA  
 Apr 24 - 28 . . . . . Rochester, NY  
 Apr 24 - 28 . . . . . Toronto, ON  
 May 1 - 5 . . . . . Binghamton, NY  
 May 8 - 12 . . . . . Long Island, NY  
 May 8 - 12 . . . . . San Jose, CA  
 May 15 - 19 . . . . . Palm Bay, FL  
 May 15 - 19 . . . . . Portland, OR  
 May 15 - 19 . . . . . Schaumburg, IL  
 May 22 - 26 . . . . . Manchester, NH  
 May 22 - 26 . . . . . Watertown, CT  
 Jun 19 - 23 . . . . . San Diego, CA  
 Jun 19 - 23 . . . . . Toronto, ON  
 Jun 26 - 30 . . . . . Minneapolis, MN  
 Jul 10 - 14 . . . . . Portland, OR  
 Jul 10 - 14 . . . . . San Jose, CA  
 Jul 17 - 21 . . . . . Kansas City, MO  
 Jul 17 - 21 . . . . . Manchester, NH

Jul 31 - Aug 4 . . . . . Anaheim, CA  
 Jul 31 - Aug 4 . . . . . Buffalo, NY  
 Aug 14 - 18 . . . . . Ottawa, ON  
 Aug 14 - 18 . . . . . Palm Bay, FL  
 Aug 14 - 18 . . . . . Seattle, WA  
 Aug 21 - 25 . . . . . San Diego, CA  
 Aug 21 - 25 . . . . . Watertown, CT  
 Aug 28 - Sep 1 . . . . . Rochester, NY  
 Aug 28 - Sep 1 . . . . . Toronto, ON  
 Sep 11 - 15 . . . . . San Jose, CA  
 Sep 11 - 15 . . . . . Schaumburg, IL  
 Sep 18 - 22 . . . . . Manchester, NH  
 Sep 25 - 29 . . . . . Minneapolis, MN  
 Oct 9 - 13 . . . . . Binghamton, NY  
 Oct 9 - 13 . . . . . Portland, OR  
 Oct 9 - 13 . . . . . Toronto, ON  
 Oct 16 - 20 . . . . . Anaheim, CA  
 Nov 6 - 10 . . . . . San Jose, CA  
 Nov 6 - 10 . . . . . Manchester, NH  
 Nov 13 - 17 . . . . . San Diego, CA  
 Nov 13 - 17 . . . . . Watertown, CT  
 Nov 27 - Dec 1 . . . . . Buffalo, NY  
 Nov 27 - Dec 1 . . . . . Ottawa, ON  
 Dec 4 - 8 . . . . . Seattle, WA  
 Dec 18 - 22 . . . . . Kansas City, MO  
 Dec 18 - 22 . . . . . Long Island, NY  
 Dec 18 - 22 . . . . . Palm Bay, FL  
 Dec 18 - 22 . . . . . Schaumburg, IL  
 Dec 18 - 22 . . . . . Toronto, ON

#### ON-LINE Start time: 10am E.S.T. FOR LECTURE AND EXAM ONLY\*

Feb 20 - 23  
 May 1 - 4  
 Aug 14 - 17  
 Oct 23 - 26

#### Challenge Test IN-PERSON Manchester, NH

Jan 12	Apr 14	Aug 11	Nov 10
Feb 17	May 12	Sep 15	Dec 1
Mar 10	Jul 5	Oct 13	

#### J-STD-001 CIT Space Addendum Certification

Feb 24 . . . . . Watertown, CT  
 Mar 10 . . . . . Toronto, ON  
 Apr 21 . . . . . Manchester, NH  
 May 5 . . . . . Rochester, NY  
 May 19 . . . . . Toronto, ON  
 May 19 . . . . . Watertown, CT  
 Jul 6 . . . . . Manchester, NH  
 Aug 11 . . . . . Watertown, CT  
 Oct 6 . . . . . Manchester, NH

Nov 17 . . . . . Manchester, NH  
 Nov 17 . . . . . Toronto, ON  
 Dec 27 . . . . . Manchester, NH

#### ON-LINE Start time: 10am E.S.T.

Feb 24                      Aug 18  
 May 5                      Oct 27  
 Jul 14                      Nov 17

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.

#### J-STD-001 CIT Recertification

Jan 5 - 6 . . . . . Manchester, NH  
 Jan 11 - 12 . . . . . Palm Bay, FL  
 Jan 18 - 19 . . . . . Kansas City, MO  
 Jan 18 - 19 . . . . . San Diego, CA  
 Jan 25 - 26 . . . . . Anaheim, CA  
 Jan 26 - 27 . . . . . Minneapolis, MN  
 Jan 26 - 27 . . . . . Rochester, NY  
 Feb 1 - 2 . . . . . Long Island, NY  
 Feb 1 - 2 . . . . . Schaumburg, IL  
 Feb 8 - 9 . . . . . San Jose, CA  
 Feb 15 - 16 . . . . . Binghamton, NY  
 Feb 22 - 23 . . . . . Seattle, WA  
 Feb 22 - 23 . . . . . Watertown, CT  
 Mar 8 - 9 . . . . . Toronto, ON  
 Mar 15 - 16 . . . . . Manchester, NH  
 Mar 30 - 31 . . . . . Ottawa, ON  
 Apr 6 - 7 . . . . . Buffalo, NY  
 Apr 12 - 13 . . . . . Schaumburg, IL  
 Apr 26 - 27 . . . . . San Jose, CA  
 May 1 - 2 . . . . . Palm Bay, FL  
 May 3 - 4 . . . . . Rochester, NY  
 May 10 - 11 . . . . . Manchester, NH  
 May 17 - 18 . . . . . Toronto, ON  
 May 17 - 18 . . . . . Watertown, CT  
 May 18 - 19 . . . . . Minneapolis, MN  
 Jun 7 - 8 . . . . . San Jose, CA  
 Jun 14 - 15 . . . . . San Diego, CA  
 Jun 21 - 22 . . . . . Binghamton, NY  
 Jun 28 - 29 . . . . . Long Island, NY  
 Jun 28 - 29 . . . . . Seattle, WA  
 Jul 12 - 13 . . . . . Manchester, NH  
 Jul 19 - 20 . . . . . Anaheim, CA

Aug 2 - 3 . . . . . Rochester, NY  
 Aug 3 - 4 . . . . . Portland, OR  
 Aug 9 - 10 . . . . . Buffalo, NY  
 Aug 9 - 10 . . . . . Watertown, CT  
 Aug 10 - 11 . . . . . Toronto, ON  
 Aug 16 - 17 . . . . . San Jose, CA  
 Aug 17 - 18 . . . . . Minneapolis, MN  
 Aug 30 - 31 . . . . . Schaumburg, IL  
 Aug 31 - Sep 1 . . . . . Kansas City, MO  
 Sep 7 - 8 . . . . . Binghamton, NY  
 Sep 7 - 8 . . . . . Manchester, NH  
 Sep 21 - 22 . . . . . Palm Bay, FL  
 Sep 27 - 28 . . . . . Rochester, NY  
 Oct 11 - 12 . . . . . Manchester, NH  
 Oct 11 - 12 . . . . . San Diego, CA  
 Oct 12 - 13 . . . . . Buffalo, NY  
 Oct 25 - 26 . . . . . Seattle, WA  
 Nov 1 - 2 . . . . . San Jose, CA  
 Nov 8 - 9 . . . . . Watertown, CT  
 Nov 9 - 10 . . . . . Schaumburg, IL  
 Nov 15 - 16 . . . . . Manchester, NH  
 Nov 15 - 16 . . . . . Toronto, ON

#### ON-LINE Start time: 10am E.S.T. FOR LECTURE AND EXAM ONLY\*

Feb 15 - 16  
 Apr 19 - 20  
 Jul 12 - 13  
 Oct 18 - 19

#### Challenge Test IN-PERSON Manchester, NH

Jan 3	Apr 14	Aug 11	Nov 10
Feb 17	May 12	Sep 15	Dec 1
Mar 10	Jul 5	Oct 13	

#### J-STD-001 CIT Space Addendum Recertification

Feb 24 . . . . . Watertown, CT  
 Mar 10 . . . . . Toronto, ON  
 Apr 21 . . . . . Manchester, NH  
 May 5 . . . . . Rochester, NY  
 May 19 . . . . . Toronto, ON  
 May 19 . . . . . Watertown, CT  
 Jul 6 . . . . . Manchester, NH  
 Aug 11 . . . . . Watertown, CT  
 Oct 6 . . . . . Manchester, NH

Nov 17 . . . . . Manchester, NH  
 Nov 17 . . . . . Toronto, ON  
 Dec 27 . . . . . Manchester, NH

#### ON-LINE Start time: 10am E.S.T.

Feb 24                      Aug 18  
 May 5                      Oct 27  
 Jul 14                      Nov 17

**\*Important Note: J-STD-001 ON-LINE CLASS DATES ARE FOR THE LECTURE AND EXAM ONLY.** Attendees will need to travel to a confirmed, in-person J-STD-001 class to complete their workmanship requirements with an EPTAC Instructor.



### 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

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

### J-STD-001 "Requirements for Soldered Electrical & Electronic Assemblies"

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

#### J-STD-001 CIS Certification

Jan 9 - 13 . . . . . Manchester, NH	Jul 10 - 14 . . . . . Portland, OR
Jan 9 - 13 . . . . . Buffalo, NY	Jul 10 - 14 . . . . . San Jose, CA
Jan 9 - 13 . . . . . San Jose, CA	Jul 17 - 21 . . . . . Kansas City, MO
Jan 30 - Feb 3 . . . . . Anaheim, CA	Jul 31 - Aug 4 . . . . . Anaheim, CA
Jan 30 - Feb 3 . . . . . Rochester, NY	Jul 31 - Aug 4 . . . . . Buffalo, NY
Jan 30 - Feb 3 . . . . . Toronto, ON	Aug 14 - 18 . . . . . Akron, OH
Feb 6 - 10 . . . . . Portland, OR	Aug 14 - 18 . . . . . Ottawa, ON
Feb 6 - 10 . . . . . Schaumburg, IL	Aug 14 - 18 . . . . . Palm Bay, FL
Feb 13 - 17 . . . . . Watertown, CT	Aug 14 - 18 . . . . . Seattle, WA
Feb 20 - 24 . . . . . San Diego, CA	Aug 21 - 25 . . . . . San Diego, CA
Feb 20 - 24 . . . . . Syracuse, NY	Aug 21 - 25 . . . . . Watertown, CT
Feb 27 - Mar 3 . . . . . Manchester, NH	Aug 28 - Sep 1 . . . . . Manchester, NH
Feb 27 - Mar 3 . . . . . Ottawa, ON	Aug 28 - Sep 1 . . . . . Pittsburgh, PA
Feb 27 - Mar 3 . . . . . Palm Bay, FL	Aug 28 - Sep 1 . . . . . Rochester, NY
Mar 13 - 17 . . . . . Kansas City, MO	Aug 28 - Sep 1 . . . . . Toronto, ON
Mar 13 - 17 . . . . . Seattle, WA	Sep 11 - 15 . . . . . San Jose, CA
Mar 20 - 24 . . . . . Pittsburgh, PA	Sep 11 - 15 . . . . . Schaumburg, IL
Mar 20 - 24 . . . . . San Jose, CA	Sep 25 - 29 . . . . . Manchester, NH
Apr 3 - 7 . . . . . Akron, OH	Oct 9 - 13 . . . . . Binghamton, NY
Apr 10 - 14 . . . . . Buffalo, NY	Oct 9 - 13 . . . . . Portland, OR
Apr 17 - 21 . . . . . Anaheim, CA	Oct 9 - 13 . . . . . Toronto, ON
Apr 17 - 21 . . . . . Manchester, NH	Oct 16 - 20 . . . . . Anaheim, CA
Apr 24 - 28 . . . . . Halifax, NS	Oct 16 - 20 . . . . . Manchester, NH
Apr 24 - 28 . . . . . Rochester, NY	Nov 6 - 10 . . . . . San Jose, CA
Apr 24 - 28 . . . . . Toronto, ON	Nov 6 - 10 . . . . . Syracuse, NY
May 1 - 5 . . . . . Binghamton, NY	Nov 13 - 17 . . . . . San Diego, CA
May 8 - 12 . . . . . Long Island, NY	Nov 13 - 17 . . . . . Watertown, CT
May 8 - 12 . . . . . San Jose, CA	Nov 27 - Dec 1 . . . . . Buffalo, NY
May 15 - 19 . . . . . Manchester, NH	Nov 27 - Dec 1 . . . . . Ottawa, ON
May 15 - 19 . . . . . Palm Bay, FL	Dec 4 - 8 . . . . . Seattle, WA
May 15 - 19 . . . . . Portland, OR	Dec 11 - 15 . . . . . Manchester, NH
May 15 - 19 . . . . . Schaumburg, IL	Dec 18 - 22 . . . . . Kansas City, MO
May 22 - 26 . . . . . Watertown, CT	Dec 18 - 22 . . . . . Long Island, NY
Jun 19 - 23 . . . . . San Diego, CA	Dec 18 - 22 . . . . . Palm Bay, FL
Jun 19 - 23 . . . . . Toronto, ON	Dec 18 - 22 . . . . . Schaumburg, IL
Jun 26 - 30 . . . . . Manchester, NH	Dec 18 - 22 . . . . . Toronto, ON

#### J-STD-001 CIS Recertification

Jan 9 - 13 . . . . . Manchester, NH	Jul 10 - 14 . . . . . Portland, OR
Jan 9 - 13 . . . . . Buffalo, NY	Jul 10 - 14 . . . . . San Jose, CA
Jan 9 - 13 . . . . . San Jose, CA	Jul 17 - 21 . . . . . Kansas City, MO
Jan 30 - Feb 3 . . . . . Anaheim, CA	Jul 31 - Aug 4 . . . . . Anaheim, CA
Jan 30 - Feb 3 . . . . . Rochester, NY	Jul 31 - Aug 4 . . . . . Buffalo, NY
Jan 30 - Feb 3 . . . . . Toronto, ON	Aug 14 - 18 . . . . . Akron, OH
Feb 6 - 10 . . . . . Portland, OR	Aug 14 - 18 . . . . . Ottawa, ON
Feb 6 - 10 . . . . . Schaumburg, IL	Aug 14 - 18 . . . . . Palm Bay, FL
Feb 13 - 17 . . . . . Watertown, CT	Aug 14 - 18 . . . . . Seattle, WA
Feb 20 - 24 . . . . . San Diego, CA	Aug 21 - 25 . . . . . San Diego, CA
Feb 20 - 24 . . . . . Syracuse, NY	Aug 21 - 25 . . . . . Watertown, CT
Feb 27 - Mar 3 . . . . . Manchester, NH	Aug 28 - Sep 1 . . . . . Manchester, NH
Feb 27 - Mar 3 . . . . . Ottawa, ON	Aug 28 - Sep 1 . . . . . Pittsburgh, PA
Feb 27 - Mar 3 . . . . . Palm Bay, FL	Aug 28 - Sep 1 . . . . . Rochester, NY
Mar 13 - 17 . . . . . Kansas City, MO	Aug 28 - Sep 1 . . . . . Toronto, ON
Mar 13 - 17 . . . . . Seattle, WA	Sep 11 - 15 . . . . . San Jose, CA
Mar 20 - 24 . . . . . Pittsburgh, PA	Sep 11 - 15 . . . . . Schaumburg, IL
Mar 20 - 24 . . . . . San Jose, CA	Sep 25 - 29 . . . . . Manchester, NH
Apr 3 - 7 . . . . . Akron, OH	Oct 9 - 13 . . . . . Binghamton, NY
Apr 10 - 14 . . . . . Buffalo, NY	Oct 9 - 13 . . . . . Portland, OR
Apr 17 - 21 . . . . . Anaheim, CA	Oct 9 - 13 . . . . . Toronto, ON
Apr 17 - 21 . . . . . Manchester, NH	Oct 16 - 20 . . . . . Anaheim, CA
Apr 24 - 28 . . . . . Halifax, NS	Oct 16 - 20 . . . . . Manchester, NH
Apr 24 - 28 . . . . . Rochester, NY	Nov 6 - 10 . . . . . San Jose, CA
Apr 24 - 28 . . . . . Toronto, ON	Nov 6 - 10 . . . . . Syracuse, NY
May 1 - 5 . . . . . Binghamton, NY	Nov 13 - 17 . . . . . San Diego, CA
May 8 - 12 . . . . . Long Island, NY	Nov 13 - 17 . . . . . Watertown, CT
May 8 - 12 . . . . . San Jose, CA	Nov 27 - Dec 1 . . . . . Buffalo, NY
May 15 - 19 . . . . . Manchester, NH	Nov 27 - Dec 1 . . . . . Ottawa, ON
May 15 - 19 . . . . . Palm Bay, FL	Dec 4 - 8 . . . . . Seattle, WA
May 15 - 19 . . . . . Portland, OR	Dec 11 - 15 . . . . . Manchester, NH
May 15 - 19 . . . . . Schaumburg, IL	Dec 18 - 22 . . . . . Kansas City, MO
May 22 - 26 . . . . . Watertown, CT	Dec 18 - 22 . . . . . Long Island, NY
Jun 19 - 23 . . . . . San Diego, CA	Dec 18 - 22 . . . . . Palm Bay, FL
Jun 19 - 23 . . . . . Toronto, ON	Dec 18 - 22 . . . . . Schaumburg, IL
Jun 26 - 30 . . . . . Manchester, NH	Dec 18 - 22 . . . . . Toronto, ON

#### J-STD-001 CIS Space Addendum Certification

Feb 24 . . . . . Watertown, CT	Nov 17 . . . . . Manchester, NH
Mar 10 . . . . . Toronto, ON	Nov 17 . . . . . Toronto, ON
Apr 21 . . . . . Manchester, NH	Dec 27 . . . . . Manchester, NH
May 5 . . . . . Rochester, NY	
May 19 . . . . . Toronto, ON	
May 19 . . . . . Watertown, CT	
Jul 6 . . . . . Manchester, NH	Feb 24 . . . . . Aug 18
Aug 11 . . . . . Watertown, CT	May 5 . . . . . Oct 27
Oct 6 . . . . . Manchester, NH	Jul 14 . . . . . Nov 17

**ON-LINE** Start time: 10am E.S.T.

#### Challenge Test IN-PERSON Manchester, NH

Jan 12	Apr 14	Aug 11	Nov 10
Feb 17	May 12	Sep 15	Dec 1
Mar 10	Jul 5	Oct 13	

#### J-STD-001 CIS Space Addendum Recertification

Feb 24 . . . . . Watertown, CT	Nov 17 . . . . . Manchester, NH
Mar 10 . . . . . Toronto, ON	Nov 17 . . . . . Toronto, ON
Apr 21 . . . . . Manchester, NH	Dec 27 . . . . . Manchester, NH
May 5 . . . . . Rochester, NY	
May 19 . . . . . Toronto, ON	
May 19 . . . . . Watertown, CT	
Jul 6 . . . . . Manchester, NH	Feb 24 . . . . . Aug 18
Aug 11 . . . . . Watertown, CT	May 5 . . . . . Oct 27
Oct 6 . . . . . Manchester, NH	Jul 14 . . . . . Nov 17

**ON-LINE** Start time: 10am E.S.T.

#### Challenge Test IN-PERSON Manchester, NH

Jan 12	Apr 14	Aug 11	Nov 10
Feb 17	May 12	Sep 15	Dec 1
Mar 10	Jul 5	Oct 13	

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.



### 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

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

### J-STD-001 "Requirements for Soldered Electrical & Electronic Assemblies"

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

#### J-STD-001 CSE Certification

Jan 9 - 13	Buffalo, NY
Jan 9 - 13	San Jose, CA
Jan 23 - 27	Manchester, NH
Jan 30 - Feb 3	Anaheim, CA
Jan 30 - Feb 3	Rochester, NY
Jan 30 - Feb 3	Toronto, ON
Feb 6 - 10	Portland, OR
Feb 6 - 10	Schaumburg, IL
Feb 13 - 17	Watertown, CT
Feb 20 - 24	San Diego, CA
Feb 27 - Mar 3	Ottawa, ON
Feb 27 - Mar 3	Palm Bay, FL
Mar 13 - 17	Kansas City, MO
Mar 13 - 17	Seattle, WA
Mar 13 - 17	Watertown, CT
Mar 20 - 24	San Jose, CA
Mar 27 - 31	Manchester, NH
Mar 27 - 31	Minneapolis, MN
Apr 10 - 14	Buffalo, NY
Apr 17 - 21	Anaheim, CA
Apr 24 - 28	Rochester, NY
Apr 24 - 28	Toronto, ON
May 1 - 5	Binghamton, NY
May 8 - 12	Long Island, NY
May 8 - 12	San Jose, CA
May 15 - 19	Palm Bay, FL
May 15 - 19	Portland, OR
May 15 - 19	Schaumburg, IL
May 22 - 26	Manchester, NH
May 22 - 26	Watertown, CT
Jun 19 - 23	San Diego, CA
Jun 19 - 23	Toronto, ON
Jun 26 - 30	Minneapolis, MN
Jul 10 - 14	Portland, OR
Jul 10 - 14	San Jose, CA
Jul 17 - 21	Kansas City, MO

Jul 17 - 21	Manchester, NH
Jul 31 - Aug 4	Anaheim, CA
Jul 31 - Aug 4	Buffalo, NY
Aug 14 - 18	Ottawa, ON
Aug 14 - 18	Palm Bay, FL
Aug 14 - 18	Seattle, WA
Aug 21 - 25	San Diego, CA
Aug 21 - 25	Watertown, CT
Aug 28 - Sep 1	Rochester, NY
Aug 28 - Sep 1	Toronto, ON
Sep 11 - 15	San Jose, CA
Sep 11 - 15	Schaumburg, IL
Sep 18 - 22	Manchester, NH
Sep 25 - 29	Minneapolis, MN
Oct 9 - 13	Binghamton, NY
Oct 9 - 13	Portland, OR
Oct 9 - 13	Toronto, ON
Oct 16 - 20	Anaheim, CA
Nov 6 - 10	Manchester, NH
Nov 6 - 10	San Jose, CA
Nov 13 - 17	San Diego, CA
Nov 13 - 17	Watertown, CT
Nov 27 - Dec 1	Buffalo, NY
Nov 27 - Dec 1	Ottawa, ON
Dec 4 - 8	Seattle, WA
Dec 18 - 22	Kansas City, MO
Dec 18 - 22	Long Island, NY
Dec 18 - 22	Palm Bay, FL
Dec 18 - 22	Schaumburg, IL
Dec 18 - 22	Toronto, ON

#### ON-LINE Start time: 10am E.S.T.

Feb 20 - 23
May 1 - 4
Aug 14 - 17
Oct 23 - 26

#### Challenge Test

##### IN-PERSON Manchester, NH

Jan 12	Aug 11
Feb 17	Sep 15
Mar 10	Oct 13
Apr 14	Nov 10
May 12	Dec 1
Jul 5	

##### ON-LINE Start time: 10am E.S.T.

Jan 11	May 17	Sep 20
Jan 25	May 31	Oct 4
Feb 8	Jun 14	Oct 18
Feb 22	Jun 28	Nov 1
Mar 8	Jul 12	Nov 15
Mar 22	Jul 26	Nov 29
Apr 5	Aug 9	Dec 13
Apr 19	Aug 23	Dec 27
May 3	Sep 6	

#### J-STD-001 CSE Space Addendum Certification

Feb 24	Watertown, CT
Mar 10	Toronto, ON
Apr 21	Manchester, NH
May 5	Rochester, NY
May 19	Toronto, ON
May 19	Watertown, CT
Jul 6	Manchester, NH
Aug 11	Watertown, CT
Oct 6	Manchester, NH

Nov 17	Manchester, NH
Nov 17	Toronto, ON
Dec 27	Manchester, NH

#### ON-LINE Start time: 10am E.S.T.

Feb 24	Aug 18
May 5	Oct 27
Jul 14	Nov 17

#### J-STD-001 CSE Recertification

Jan 11 - 12	Manchester, NH
Jan 11 - 12	Palm Bay, FL
Jan 18 - 19	Kansas City, MO
Jan 18 - 19	San Diego, CA
Jan 25 - 26	Anaheim, CA
Jan 26 - 27	Minneapolis, MN
Jan 26 - 27	Rochester, NY
Feb 1 - 2	Long Island, NY
Feb 1 - 2	Schaumburg, IL
Feb 8 - 9	San Jose, CA
Feb 15 - 16	Binghamton, NY
Feb 22 - 23	Seattle, WA
Feb 22 - 23	Watertown, CT
Mar 8 - 9	Toronto, ON
Mar 15 - 16	Manchester, NH
Mar 30 - 31	Ottawa, ON
Apr 6 - 7	Buffalo, NY
Apr 12 - 13	Schaumburg, IL
Apr 26 - 27	San Jose, CA
May 1 - 2	Palm Bay, FL
May 3 - 4	Rochester, NY
May 10 - 11	Manchester, NH
May 17 - 18	Toronto, ON
May 17 - 18	Watertown, CT
May 18 - 19	Minneapolis, MN
Jun 7 - 8	San Jose, CA
Jun 14 - 15	San Diego, CA
Jun 21 - 22	Binghamton, NY
Jun 28 - 29	Long Island, NY
Jun 28 - 29	Seattle, WA
Jul 12 - 13	Manchester, NH

Jul 19 - 20	Anaheim, CA
Aug 2 - 3	Rochester, NY
Aug 3 - 4	Portland, OR
Aug 9 - 10	Buffalo, NY
Aug 9 - 10	Watertown, CT
Aug 10 - 11	Toronto, ON
Aug 16 - 17	San Jose, CA
Aug 17 - 18	Minneapolis, MN
Aug 30 - 31	Schaumburg, IL
Aug 31 - Sep 1	Kansas City, MO
Sep 7 - 8	Binghamton, NY
Sep 7 - 8	Manchester, NH
Sep 21 - 22	Palm Bay, FL
Sep 27 - 28	Rochester, NY
Oct 11 - 12	Manchester, NH
Oct 11 - 12	San Diego, CA
Oct 12 - 13	Buffalo, NY
Oct 25 - 26	Seattle, WA
Nov 1 - 2	San Jose, CA
Nov 8 - 9	Watertown, CT
Nov 9 - 10	Schaumburg, IL
Nov 15 - 16	Manchester, NH
Nov 15 - 16	Minneapolis, MN
Nov 15 - 16	Toronto, ON

#### ON-LINE Start time: 10am E.S.T.

Feb 15 - 16
Apr 19 - 20
Jul 12 - 13
Oct 18 - 19

#### Challenge Test

##### IN-PERSON Manchester, NH

Jan 12	Aug 11
Feb 17	Sep 15
Mar 10	Oct 13
Apr 14	Nov 10
May 12	Dec 1
Jul 5	

##### ON-LINE Start time: 10am E.S.T.

Jan 11	May 17	Sep 20
Jan 25	May 31	Oct 4
Feb 8	Jun 14	Oct 18
Feb 22	Jun 28	Nov 1
Mar 8	Jul 12	Nov 15
Mar 22	Jul 26	Nov 29
Apr 5	Aug 9	Dec 13
Apr 19	Aug 23	Dec 27
May 3	Sep 6	

#### J-STD-001 CSE Space Addendum Recertification

Feb 24	Watertown, CT
Mar 10	Toronto, ON
Apr 21	Manchester, NH
May 5	Rochester, NY
May 19	Toronto, ON
May 19	Watertown, CT
Jul 6	Manchester, NH
Aug 11	Watertown, CT
Oct 6	Manchester, NH

Nov 17	Manchester, NH
Nov 17	Toronto, ON
Dec 27	Manchester, NH

#### ON-LINE Start time: 10am E.S.T.

Feb 24	Aug 18
May 5	Oct 27
Jul 14	Nov 17

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.



### 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

## J-STD-001 Space Addendum (CIT, CIS, CSE)

### J-STD-001 "Requirements for Soldered Electrical & Electronic Assemblies"

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

#### J-STD-001 CIT Space Addendum Certification

Feb 24 . . . . . Watertown, CT	Nov 17 . . . . . Toronto, ON
Mar 10 . . . . . Toronto, ON	Dec 27 . . . . . Manchester, NH
Apr 21 . . . . . Manchester, NH	
May 5 . . . . . Rochester, NY	<b>ON-LINE</b> Start time: 10am E.S.T.
May 19 . . . . . Toronto, ON	Feb 24
May 19 . . . . . Watertown, CT	May 5
Jul 6 . . . . . Manchester, NH	Jul 14
Aug 11 . . . . . Watertown, CT	Aug 18
Oct 6 . . . . . Manchester, NH	Oct 27
Nov 17 . . . . . Manchester, NH	Nov 17

#### J-STD-001 CSE Space Addendum Certification

Feb 24 . . . . . Watertown, CT	Nov 17 . . . . . Toronto, ON
Mar 10 . . . . . Toronto, ON	Dec 27 . . . . . Manchester, NH
Apr 21 . . . . . Manchester, NH	
May 5 . . . . . Rochester, NY	<b>ON-LINE</b> Start time: 10am E.S.T.
May 19 . . . . . Toronto, ON	Feb 24
May 19 . . . . . Watertown, CT	May 5
Jul 6 . . . . . Manchester, NH	Jul 14
Aug 11 . . . . . Watertown, CT	Aug 18
Oct 6 . . . . . Manchester, NH	Oct 27
Nov 17 . . . . . Manchester, NH	Nov 17

#### J-STD-001 CIT Space Addendum Recertification

Feb 24 . . . . . Watertown, CT	Nov 17 . . . . . Toronto, ON
Mar 10 . . . . . Toronto, ON	Dec 27 . . . . . Manchester, NH
Apr 21 . . . . . Manchester, NH	
May 5 . . . . . Rochester, NY	<b>ON-LINE</b> Start time: 10am E.S.T.
May 19 . . . . . Toronto, ON	Feb 24
May 19 . . . . . Watertown, CT	May 5
Jul 6 . . . . . Manchester, NH	Jul 14
Aug 11 . . . . . Watertown, CT	Aug 18
Oct 6 . . . . . Manchester, NH	Oct 27
Nov 17 . . . . . Manchester, NH	Nov 17

#### J-STD-001 CSE Space Addendum Recertification

Feb 24 . . . . . Watertown, CT	Nov 17 . . . . . Toronto, ON
Mar 10 . . . . . Toronto, ON	Dec 27 . . . . . Manchester, NH
Apr 21 . . . . . Manchester, NH	
May 5 . . . . . Rochester, NY	<b>ON-LINE</b> Start time: 10am E.S.T.
May 19 . . . . . Toronto, ON	Feb 24
May 19 . . . . . Watertown, CT	May 5
Jul 6 . . . . . Manchester, NH	Jul 14
Aug 11 . . . . . Watertown, CT	Aug 18
Oct 6 . . . . . Manchester, NH	Oct 27
Nov 17 . . . . . Manchester, NH	Nov 17

#### J-STD-001 CIS Space Addendum Certification

Feb 24 . . . . . Watertown, CT	Nov 17 . . . . . Toronto, ON
Mar 10 . . . . . Toronto, ON	Dec 27 . . . . . Manchester, NH
Apr 21 . . . . . Manchester, NH	
May 5 . . . . . Rochester, NY	<b>ON-LINE</b> Start time: 10am E.S.T.
May 19 . . . . . Toronto, ON	Feb 24
May 19 . . . . . Watertown, CT	May 5
Jul 6 . . . . . Manchester, NH	Jul 14
Aug 11 . . . . . Watertown, CT	Aug 18
Oct 6 . . . . . Manchester, NH	Oct 27
Nov 17 . . . . . Manchester, NH	Nov 17

#### J-STD-001 CIS Space Addendum Recertification

Feb 24 . . . . . Watertown, CT	Nov 17 . . . . . Toronto, ON
Mar 10 . . . . . Toronto, ON	Dec 27 . . . . . Manchester, NH
Apr 21 . . . . . Manchester, NH	
May 5 . . . . . Rochester, NY	<b>ON-LINE</b> Start time: 10am E.S.T.
May 19 . . . . . Toronto, ON	Feb 24
May 19 . . . . . Watertown, CT	May 5
Jul 6 . . . . . Manchester, NH	Jul 14
Aug 11 . . . . . Watertown, CT	Aug 18
Oct 6 . . . . . Manchester, NH	Oct 27
Nov 17 . . . . . Manchester, NH	Nov 17

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.





### 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

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

### IPC/WHMA-A-620 "Requirements and Acceptance for Cable and Wire Harness Assemblies"

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

#### IPC-A-620 CIT Certification

Jan 9 - 12 . . . . . Kansas City, MO	Sep 12 - 15 . . . . . Pittsburgh, PA
Jan 10 - 13 . . . . . Anaheim, CA	Sep 18 - 21 . . . . . Akron, OH
Jan 16 - 19 . . . . . Manchester, NH	Sep 18 - 21 . . . . . Anaheim, CA
Jan 23 - 26 . . . . . San Jose, CA	Sep 18 - 21 . . . . . San Jose, CA
Jan 24 - 27 . . . . . Long Island, NY	Sep 25 - 28 . . . . . Buffalo, NY
Jan 24 - 27 . . . . . Watertown, CT	Sep 25 - 28 . . . . . Palm Bay, FL
Feb 13 - 16 . . . . . Pittsburgh, PA	Sep 25 - 28 . . . . . San Diego, CA
Feb 13 - 16 . . . . . San Diego, CA	Oct 2 - 5 . . . . . Long Island, NY
Feb 13 - 16 . . . . . Seattle, WA	Oct 2 - 5 . . . . . Schaumburg, IL
Feb 20 - 23 . . . . . Schaumburg, IL	Oct 9 - 12 . . . . . Rochester, NY
Feb 20 - 23 . . . . . Toronto, ON	Oct 16 - 19 . . . . . Kansas City, MO
Mar 6 - 9 . . . . . Manchester, NH	Oct 23 - 26 . . . . . Watertown, CT
Mar 6 - 9 . . . . . Palm Bay, FL	Nov 7 - 10 . . . . . Anaheim, CA
Mar 13 - 16 . . . . . San Jose, CA	Nov 13 - 16 . . . . . San Jose, CA
Mar 20 - 23 . . . . . Anaheim, CA	Nov 27 - 30 . . . . . Schaumburg, IL
Mar 20 - 23 . . . . . Buffalo, NY	Nov 28 - Dec 1 . . . . . San Diego, CA
Mar 27 - 30 . . . . . Rochester, NY	Nov 28 - Dec 1 . . . . . Seattle, WA
Apr 17 - 20 . . . . . San Diego, CA	Dec 4 - 7 . . . . . Toronto, ON
Apr 17 - 20 . . . . . Watertown, CT	Dec 5 - 8 . . . . . Minneapolis, MN
Apr 24 - 27 . . . . . Minneapolis, MN	Dec 11 - 14 . . . . . Palm Bay, FL
May 1 - 4 . . . . . Kansas City, MO	Dec 18 - 21 . . . . . Manchester, NH
May 8 - 11 . . . . . Schaumburg, IL	
May 15 - 18 . . . . . Long Island, NY	
May 15 - 18 . . . . . San Jose, CA	
May 22 - 25 . . . . . Akron, OH	
May 22 - 25 . . . . . Manchester, NH	
May 29 - Jun 1 . . . . . Toronto, ON	
Jun 5 - 8 . . . . . Buffalo, NY	
Jun 12 - 15 . . . . . Minneapolis, MN	
Jun 19 - 22 . . . . . Anaheim, CA	
Jun 26 - 29 . . . . . Palm Bay, FL	
Jun 26 - 29 . . . . . Rochester, NY	
Jul 17 - 20 . . . . . Seattle, WA	
Jul 24 - 27 . . . . . Manchester, NH	
Jul 24 - 27 . . . . . San Jose, CA	
Jul 24 - 27 . . . . . Watertown, CT	
Aug 14 - 17 . . . . . Schaumburg, IL	
Aug 21 - 24 . . . . . Toronto, ON	
Sep 11 - 14 . . . . . Manchester, NH	
Sep 11 - 14 . . . . . Minneapolis, MN	

#### ON-LINE Start time: 10am E.S.T.

Jan 16 - 19
Feb 6 - 9
Feb 27 - Mar 2
Mar 20 - 23
Apr 10 - 13
May 1 - 4
May 22 - 25
Jun 12 - 15
Jul 10 - 13
Jul 31 - Aug 3
Aug 21 - 24
Sep 11 - 14
Oct 2 - 5
Oct 23 - 26
Nov 13 - 16
Dec 4 - 7
Dec 18 - 21

#### Challenge Test

##### IN-PERSON Manchester, NH

Jan 12	Aug 11
Feb 17	Sep 15
Mar 10	Oct 13
Apr 14	Nov 10
May 12	Dec 1
Jul 5	

##### ON-LINE Start time: 10am E.S.T.

Jan 11	May 17	Sep 20
Jan 25	May 31	Oct 4
Feb 8	Jun 14	Oct 18
Feb 22	Jun 28	Nov 1
Mar 8	Jul 12	Nov 15
Mar 22	Jul 26	Nov 29
Apr 5	Aug 9	Dec 13
Apr 19	Aug 23	Dec 27
May 3	Sep 6	

#### IPC-A-620 CIT Recertification

Mar 20 - 21	Manchester, NH
May 25 - 26	Toronto, ON
Sep 28 - 29	Manchester, NH
Oct 2 - 3	Toronto, ON
Dec 28 - 29	Toronto, ON

#### ON-LINE Start time: 10am E.S.T.

Jan 5 - 6
Mar 8 - 9
May 10 - 11
Aug 9 - 10
Oct 19 - 20
Dec 13 - 14

#### Challenge Test

##### IN-PERSON Manchester, NH

Jan 12	Aug 11
Feb 17	Sep 15
Mar 10	Oct 13
Apr 14	Nov 10
May 12	Dec 1
Jul 5	

##### ON-LINE Start time: 10am E.S.T.

Jan 11	May 17	Sep 20
Jan 25	May 31	Oct 4
Feb 8	Jun 14	Oct 18
Feb 22	Jun 28	Nov 1
Mar 8	Jul 12	Nov 15
Mar 22	Jul 26	Nov 29
Apr 5	Aug 9	Dec 13
Apr 19	Aug 23	Dec 27
May 3	Sep 6	

#### ALSO AVAILABLE

#### IPC-A-620 Hands-on Lab

Through hands-on labs, students perform necessary procedures for building an entire wire harness assembly.

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.



### 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

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

### IPC/WHMA-A-620 "Requirements and Acceptance for Cable and Wire Harness Assemblies"

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

#### IPC-A-620 CIS Certification

Jan 9 - 12 ... Kansas City, MO	Aug 21 - 24 ... Toronto, ON
Jan 9 - 12 ... Manchester, NH	Aug 28 - 31 ... Manchester, NH
Jan 10 - 13 ... Anaheim, CA	Sep 12 - 15 ... Pittsburgh, PA
Jan 16 - 19 ... Ottawa, ON	Sep 18 - 21 ... Akron, OH
Jan 23 - 26 ... San Jose, CA	Sep 18 - 21 ... Anaheim, CA
Jan 24 - 27 ... Long Island, NY	Sep 18 - 21 ... Halifax, NS
Jan 24 - 27 ... Watertown, CT	Sep 18 - 21 ... Manchester, NH
Jan 30 - Feb 2 ... Manchester, NH	Sep 18 - 21 ... Portland, OR
Feb 6 - 9 ... Atlanta, GA	Sep 18 - 21 ... San Jose, CA
Feb 13 - 16 ... Pittsburgh, PA	Sep 25 - 28 ... Buffalo, NY
Feb 13 - 16 ... San Diego, CA	Sep 25 - 28 ... Palm Bay, FL
Feb 13 - 16 ... Seattle, WA	Sep 25 - 28 ... San Diego, CA
Feb 20 - 23 ... Manchester, NH	Oct 2 - 5 ... Binghamton, NY
Feb 20 - 23 ... Schaumburg, IL	Oct 2 - 5 ... Long Island, NY
Feb 20 - 23 ... Toronto, ON	Oct 2 - 5 ... Schaumburg, IL
Mar 6 - 9 ... Palm Bay, FL	Oct 9 - 12 ... Manchester, NH
Mar 6 - 9 ... Syracuse, NY	Oct 9 - 12 ... Rochester, NY
Mar 13 - 16 ... Manchester, NH	Oct 16 - 19 ... Kansas City, MO
Mar 13 - 16 ... San Jose, CA	Oct 23 - 26 ... Watertown, CT
Mar 20 - 23 ... Anaheim, CA	Oct 30 - Nov 2 ... Manchester, NH
Mar 20 - 23 ... Buffalo, NY	Oct 30 - Nov 2 ... Syracuse, NY
Mar 27 - 30 ... Portland, OR	Nov 6 - 9 ... Ottawa, ON
Mar 27 - 30 ... Rochester, NY	Nov 7 - 10 ... Anaheim, CA
Apr 3 - 6 ... Manchester, NH	Nov 13 - 16 ... Manchester, NH
Apr 17 - 20 ... San Diego, CA	Nov 13 - 16 ... San Jose, CA
Apr 17 - 20 ... Watertown, CT	Nov 27 - 30 ... Schaumburg, IL
Apr 24 - 27 ... Manchester, NH	Nov 28 - Dec 1 ... Atlanta, GA
May 1 - 4 ... Kansas City, MO	Nov 28 - Dec 1 ... San Diego, CA
May 8 - 11 ... Atlanta, GA	Nov 28 - Dec 1 ... Seattle, WA
May 8 - 11 ... Schaumburg, IL	Dec 4 - 7 ... Toronto, ON
May 15 - 18 ... Long Island, NY	Dec 11 - 14 ... Palm Bay, FL
May 15 - 18 ... Manchester, NH	
May 15 - 18 ... San Jose, CA	
May 22 - 25 ... Akron, OH	
May 22 - 25 ... Binghamton, NY	
May 29 - Jun 1 ... Toronto, ON	
Jun 5 - 8 ... Manchester, NH	
Jun 5 - 8 ... Buffalo, NY	
Jun 12 - 15 ... Portland, OR	
Jun 19 - 22 ... Anaheim, CA	
Jun 26 - 29 ... Manchester, NH	
Jun 26 - 29 ... Ottawa, ON	
Jun 26 - 29 ... Palm Bay, FL	
Jun 26 - 29 ... Rochester, NY	
Jul 10 - 13 ... Syracuse, NY	
Jul 17 - 20 ... Manchester, NH	
Jul 17 - 20 ... Seattle, WA	
Jul 24 - 27 ... San Jose, CA	
Jul 24 - 27 ... Watertown, CT	
Aug 7 - 10 ... Atlanta, GA	
Aug 7 - 10 ... Manchester, NH	
Aug 14 - 17 ... Schaumburg, IL	

#### IPC-A-620 CIS Recertification

Jan 9 - 12 ... Kansas City, MO	Aug 21 - 24 ... Toronto, ON
Jan 9 - 12 ... Manchester, NH	Aug 28 - 31 ... Manchester, NH
Jan 10 - 13 ... Anaheim, CA	Sep 12 - 15 ... Pittsburgh, PA
Jan 16 - 19 ... Ottawa, ON	Sep 18 - 21 ... Akron, OH
Jan 23 - 26 ... San Jose, CA	Sep 18 - 21 ... Anaheim, CA
Jan 24 - 27 ... Long Island, NY	Sep 18 - 21 ... Halifax, NS
Jan 24 - 27 ... Watertown, CT	Sep 18 - 21 ... Manchester, NH
Jan 30 - Feb 2 ... Manchester, NH	Sep 18 - 21 ... Portland, OR
Feb 6 - 9 ... Atlanta, GA	Sep 18 - 21 ... San Jose, CA
Feb 13 - 16 ... Pittsburgh, PA	Sep 25 - 28 ... Buffalo, NY
Feb 13 - 16 ... San Diego, CA	Sep 25 - 28 ... Palm Bay, FL
Feb 13 - 16 ... Seattle, WA	Sep 25 - 28 ... San Diego, CA
Feb 20 - 23 ... Manchester, NH	Oct 2 - 5 ... Binghamton, NY
Feb 20 - 23 ... Schaumburg, IL	Oct 2 - 5 ... Long Island, NY
Feb 20 - 23 ... Toronto, ON	Oct 2 - 5 ... Schaumburg, IL
Mar 6 - 9 ... Palm Bay, FL	Oct 9 - 12 ... Manchester, NH
Mar 6 - 9 ... Syracuse, NY	Oct 9 - 12 ... Rochester, NY
Mar 13 - 16 ... Manchester, NH	Oct 16 - 19 ... Kansas City, MO
Mar 13 - 16 ... San Jose, CA	Oct 23 - 26 ... Watertown, CT
Mar 20 - 23 ... Anaheim, CA	Oct 30 - Nov 2 ... Manchester, NH
Mar 20 - 23 ... Buffalo, NY	Oct 30 - Nov 2 ... Syracuse, NY
Mar 27 - 30 ... Portland, OR	Nov 6 - 9 ... Ottawa, ON
Mar 27 - 30 ... Rochester, NY	Nov 7 - 10 ... Anaheim, CA
Apr 3 - 6 ... Manchester, NH	Nov 13 - 16 ... Manchester, NH
Apr 17 - 20 ... San Diego, CA	Nov 13 - 16 ... San Jose, CA
Apr 17 - 20 ... Watertown, CT	Nov 27 - 30 ... Schaumburg, IL
Apr 24 - 27 ... Manchester, NH	Nov 28 - Dec 1 ... Atlanta, GA
May 1 - 4 ... Kansas City, MO	Nov 28 - Dec 1 ... San Diego, CA
May 8 - 11 ... Atlanta, GA	Nov 28 - Dec 1 ... Seattle, WA
May 8 - 11 ... Schaumburg, IL	Dec 4 - 7 ... Toronto, ON
May 15 - 18 ... Long Island, NY	Dec 11 - 14 ... Palm Bay, FL
May 15 - 18 ... Manchester, NH	
May 15 - 18 ... San Jose, CA	
May 22 - 25 ... Akron, OH	
May 22 - 25 ... Binghamton, NY	
May 29 - Jun 1 ... Toronto, ON	
Jun 5 - 8 ... Manchester, NH	
Jun 5 - 8 ... Buffalo, NY	
Jun 12 - 15 ... Portland, OR	
Jun 19 - 22 ... Anaheim, CA	
Jun 26 - 29 ... Manchester, NH	
Jun 26 - 29 ... Ottawa, ON	
Jun 26 - 29 ... Palm Bay, FL	
Jun 26 - 29 ... Rochester, NY	
Jul 10 - 13 ... Syracuse, NY	
Jul 17 - 20 ... Manchester, NH	
Jul 17 - 20 ... Seattle, WA	
Jul 24 - 27 ... San Jose, CA	
Jul 24 - 27 ... Watertown, CT	
Aug 7 - 10 ... Atlanta, GA	
Aug 7 - 10 ... Manchester, NH	
Aug 14 - 17 ... Schaumburg, IL	

#### ON-LINE Start time: 10am E.S.T.

Jan 16 - 19
Feb 6 - 9
Feb 27 - Mar 2
Mar 20 - 23
Apr 10 - 13
May 1 - 4
May 22 - 25
Jun 12 - 15
Jul 10 - 13
Jul 31 - Aug 3
Aug 21 - 24
Sep 11 - 14
Oct 2 - 5
Oct 23 - 26
Nov 13 - 16
Dec 4 - 7
Dec 18 - 21

#### ON-LINE Start time: 10am E.S.T.

Jan 16 - 19
Feb 6 - 9
Feb 27 - Mar 2
Mar 20 - 23
Apr 10 - 13
May 1 - 4
May 22 - 25
Jun 12 - 15
Jul 10 - 13
Jul 31 - Aug 3
Aug 21 - 24
Sep 11 - 14
Oct 2 - 5
Oct 23 - 26
Nov 13 - 16
Dec 4 - 7
Dec 18 - 21

### Challenge Test

#### IN-PERSON Manchester, NH

Jan 12	Aug 11
Feb 17	Sep 15
Mar 10	Oct 13
Apr 14	Nov 10
May 12	Dec 1
Jul 5	

#### ON-LINE Start time: 10am E.S.T.

Jan 11	May 17	Sep 20
Jan 25	May 31	Oct 4
Feb 8	Jun 14	Oct 18
Feb 22	Jun 28	Nov 1
Mar 8	Jul 12	Nov 15
Mar 22	Jul 26	Nov 29
Apr 5	Aug 9	Dec 13
Apr 19	Aug 23	Dec 27
May 3	Sep 6	

### Challenge Test

#### IN-PERSON Manchester, NH

Jan 12	Aug 11
Feb 17	Sep 15
Mar 10	Oct 13
Apr 14	Nov 10
May 12	Dec 1
Jul 5	

#### ON-LINE Start time: 10am E.S.T.

Jan 11	May 17	Sep 20
Jan 25	May 31	Oct 4
Feb 8	Jun 14	Oct 18
Feb 22	Jun 28	Nov 1
Mar 8	Jul 12	Nov 15
Mar 22	Jul 26	Nov 29
Apr 5	Aug 9	Dec 13
Apr 19	Aug 23	Dec 27
May 3	Sep 6	



### 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

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

### IPC/WHMA-A-620 "Requirements and Acceptance for Cable and Wire Harness Assemblies"

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

#### IPC-A-620 CSE Certification

Jan 9 - 12	... Kansas City, MO	Sep 12 - 15	... Pittsburgh, PA
Jan 10 - 13	... Anaheim, CA	Sep 18 - 21	... Akron, OH
Jan 16 - 19	... Manchester, NH	Sep 18 - 21	... Anaheim, CA
Jan 23 - 26	... San Jose, CA	Sep 18 - 21	... San Jose, CA
Jan 24 - 27	... Long Island, NY	Sep 25 - 28	... Buffalo, NY
Jan 24 - 27	... Watertown, CT	Sep 25 - 28	... Palm Bay, FL
Feb 13 - 16	... Pittsburgh, PA	Sep 25 - 28	... San Diego, CA
Feb 13 - 16	... San Diego, CA	Oct 2 - 5	... Long Island, NY
Feb 13 - 16	... Seattle, WA	Oct 2 - 5	... Schaumburg, IL
Feb 20 - 23	... Schaumburg, IL	Oct 9 - 12	... Rochester, NY
Feb 20 - 23	... Toronto, ON	Oct 16 - 19	... Kansas City, MO
Mar 6 - 9	... Manchester, NH	Oct 23 - 26	... Watertown, CT
Mar 6 - 9	... Palm Bay, FL	Nov 7 - 10	... Anaheim, CA
Mar 13 - 16	... San Jose, CA	Nov 13 - 16	... San Jose, CA
Mar 20 - 23	... Anaheim, CA	Nov 27 - 30	... Schaumburg, IL
Mar 20 - 23	... Buffalo, NY	Nov 28 - Dec 1	... San Diego, CA
Mar 27 - 30	... Rochester, NY	Nov 28 - Dec 1	... Seattle, WA
Apr 17 - 20	... San Diego, CA	Dec 4 - 7	... Toronto, ON
Apr 17 - 20	... Watertown, CT	Dec 5 - 8	... Minneapolis, MN
Apr 24 - 27	... Minneapolis, MN	Dec 11 - 14	... Palm Bay, FL
May 1 - 4	... Kansas City, MO	Dec 18 - 21	... Manchester, NH
May 8 - 11	... Schaumburg, IL		
May 15 - 18	... Long Island, NY		
May 15 - 18	... San Jose, CA		
May 22 - 25	... Akron, OH		
May 22 - 25	... Manchester, NH		
May 29 - Jun 1	... Toronto, ON		
Jun 5 - 8	... Buffalo, NY		
Jun 12 - 15	... Minneapolis, MN		
Jun 19 - 22	... Anaheim, CA		
Jun 26 - 29	... Palm Bay, FL		
Jun 26 - 29	... Rochester, NY		
Jul 17 - 20	... Seattle, WA		
Jul 24 - 27	... Manchester, NH		
Jul 24 - 27	... San Jose, CA		
Jul 24 - 27	... Watertown, CT		
Aug 14 - 17	... Schaumburg, IL		
Aug 21 - 24	... Toronto, ON		
Sep 11 - 14	... Manchester, NH		
Sep 11 - 14	... Minneapolis, MN		

#### ON-LINE Start time: 10am E.S.T.

Jan 16 - 19
Feb 6 - 9
Feb 27 - Mar 2
Mar 20 - 23
Apr 10 - 13
May 1 - 4
May 22 - 25
Jun 12 - 15
Jul 10 - 13
Jul 31 - Aug 3
Aug 21 - 24
Sep 11 - 14
Oct 2 - 5
Oct 23 - 26
Nov 13 - 16
Dec 4 - 7
Dec 18 - 21

#### Challenge Test

#### IN-PERSON Manchester, NH ON-LINE Start time: 10am E.S.T.

Jan 12	Aug 11	Jan 11	May 17	Sep 20
Feb 17	Sep 15	Jan 25	May 31	Oct 4
Mar 10	Oct 13	Feb 8	Jun 14	Oct 18
Apr 14	Nov 10	Feb 22	Jun 28	Nov 1
May 12	Dec 1	Mar 8	Jul 12	Nov 15
Jul 5		Mar 22	Jul 26	Nov 29
		Apr 5	Aug 9	Dec 13
		Apr 19	Aug 23	Dec 27
		May 3	Sep 6	

#### ALSO AVAILABLE

#### IPC-A-620 Hands-on Lab

Through hands-on labs, students perform necessary procedures for building an entire wire harness assembly.

#### IPC-A-620 CSE Recertification

Mar 20 - 21	Manchester, NH	<b>ON-LINE</b> Start time: 10am E.S.T.
May 25 - 26	Toronto, ON	Jan 5 - 6
Sep 28 - 29	Manchester, NH	Mar 8 - 9
Oct 2 - 3	Toronto, ON	May 10 - 11
Dec 28 - 29	Toronto, ON	Aug 9 - 10
		Oct 19 - 20
		Dec 13 - 14

#### Challenge Test

#### IN-PERSON Manchester, NH ON-LINE Start time: 10am E.S.T.

Jan 12	Aug 11	Jan 11	May 17	Sep 20
Feb 17	Sep 15	Jan 25	May 31	Oct 4
Mar 10	Oct 13	Feb 8	Jun 14	Oct 18
Apr 14	Nov 10	Feb 22	Jun 28	Nov 1
May 12	Dec 1	Mar 8	Jul 12	Nov 15
Jul 5		Mar 22	Jul 26	Nov 29
		Apr 5	Aug 9	Dec 13
		Apr 19	Aug 23	Dec 27
		May 3	Sep 6	

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.



### 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

## IPC-A-620 Hands-on Labs

### IPC/WHMA-A-620 "Requirements and Acceptance for Cable and Wire Harness Assemblies"

*Through hands-on labs, students perform necessary procedures for building an entire wire harness assembly.*

#### 620 Hands-on Labs (CIT or CIS Option)

Jan 13 . . . . .	Kansas City, MO	Jun 23 . . . . .	Anaheim, CA
Jan 20 . . . . .	Ottawa, ON	Jun 30 . . . . .	Manchester, NH
Jan 27 . . . . .	San Jose, CA	Jun 30 . . . . .	Ottawa, ON
Feb 17 . . . . .	Pittsburgh, PA	Jun 30 . . . . .	Rochester, NY
Feb 17 . . . . .	San Diego, CA	Jul 21 . . . . .	Manchester, NH
Feb 17 . . . . .	Seattle, WA	Jul 28 . . . . .	Manchester, NH
Feb 24 . . . . .	Manchester, NH	Jul 28 . . . . .	San Jose, CA
Feb 24 . . . . .	Schaumburg, IL	Aug 11 . . . . .	Manchester, NH
Feb 24 . . . . .	Toronto, ON	Aug 18 . . . . .	Schaumburg, IL
Mar 10 . . . . .	Syracuse, NY	Aug 25 . . . . .	Toronto, ON
Mar 17 . . . . .	Manchester, NH	Sep 15 . . . . .	Manchester, NH
Mar 24 . . . . .	Anaheim, CA	Sep 22 . . . . .	Akron, OH
Mar 24 . . . . .	Buffalo, NY	Sep 22 . . . . .	Anaheim, CA
Mar 31 . . . . .	Portland, OR	Sep 22 . . . . .	Manchester, NH
Mar 31 . . . . .	Rochester, NY	Sep 22 . . . . .	Portland, OR
Apr 21 . . . . .	San Diego, CA	Sep 22 . . . . .	San Jose, CA
Apr 21 . . . . .	Watertown, CT	Sep 29 . . . . .	Buffalo, NY
Apr 28 . . . . .	Manchester, NH	Oct 6 . . . . .	Long Island, NY
Apr 28 . . . . .	Minneapolis, MN	Oct 6 . . . . .	Schaumburg, IL
May 5 . . . . .	Kansas City, MO	Oct 13 . . . . .	Manchester, NH
May 12 . . . . .	Atlanta, GA	Oct 13 . . . . .	Rochester, NY
May 19 . . . . .	Long Island, NY	Oct 20 . . . . .	Kansas City, MO
May 19 . . . . .	Manchester, NH	Oct 27 . . . . .	Watertown, CT
May 19 . . . . .	San Jose, CA	Nov 3 . . . . .	Syracuse, NY
May 26 . . . . .	Binghamton, NY	Nov 10 . . . . .	Ottawa, ON
May 26 . . . . .	Manchester, NH	Nov 17 . . . . .	Manchester, NH
Jun 2 . . . . .	Toronto, ON	Nov 17 . . . . .	San Jose, CA
Jun 9 . . . . .	Buffalo, NY	Dec 1 . . . . .	Schaumburg, IL
Jun 16 . . . . .	Minneapolis, MN	Dec 8 . . . . .	Manchester, NH
Jun 16 . . . . .	Portland, OR	Dec 8 . . . . .	Toronto, ON
Jun 16 . . . . .	Syracuse, NY	Dec 22 . . . . .	Manchester, NH

#### ALSO AVAILABLE

#### Crimp Terminations Certification

- Aug 18 . . . . . Manchester, NH
- Dec 29 . . . . . Manchester, NH

#### Crimp Terminations Recertification

- Aug 18 . . . . . Manchester, NH
- Dec 29 . . . . . Manchester, NH

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.





### 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

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

### IPC-A-600 "The Acceptability of Printed Boards"

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

#### IPC-A-600 CIT Certification

Feb 13 - 15 ... Toronto, ON  
 Mar 1 - 3 ... San Jose, CA  
 Mar 27 - 29 ... Schaumburg, IL  
 May 10 - 12 ... Toronto, ON  
 May 30 - Jun 1 ... Manchester, NH  
 Jul 19 - 21 ... Schaumburg, IL  
 Aug 21 - 23 ... San Jose, CA  
 Sep 11 - 13 ... Toronto, ON  
 Nov 22 - 24 ... Toronto, ON  
 Nov 27 - 29 ... San Jose, CA  
 Dec 5 - 7 ... Manchester, NH

#### ON-LINE Start time: 10am E.S.T.

Jan 3 - 5  
 Mar 6 - 8  
 May 8 - 10  
 Jul 5 - 7  
 Sep 6 - 8  
 Nov 6 - 8

#### IPC-A-600 CIT Recertification

Feb 13 - 15 ... Toronto, ON  
 Mar 1 - 3 ... San Jose, CA  
 Mar 27 - 29 ... Schaumburg, IL  
 May 10 - 12 ... Toronto, ON  
 May 30 - Jun 1 ... Manchester, NH  
 Jul 19 - 21 ... Schaumburg, IL  
 Aug 21 - 23 ... San Jose, CA  
 Sep 11 - 13 ... Toronto, ON  
 Nov 22 - 24 ... Toronto, ON  
 Nov 27 - 29 ... San Jose, CA  
 Dec 5 - 7 ... Manchester, NH

#### ON-LINE Start time: 10am E.S.T.

Jan 3 - 5  
 Mar 6 - 8  
 May 8 - 10  
 Jul 5 - 7  
 Sep 6 - 8  
 Nov 6 - 8

### Challenge Test

#### IN-PERSON Manchester, NH

Jan 12      Aug 11  
 Feb 17      Sep 15  
 Mar 10      Oct 13  
 Apr 14      Nov 10  
 May 12      Dec 1  
 Jul 5

#### ON-LINE Start time: 10am E.S.T.

Jan 11      May 17      Sep 20  
 Jan 25      May 31      Oct 4  
 Feb 8      Jun 14      Oct 18  
 Feb 22      Jun 28      Nov 1  
 Mar 8      Jul 12      Nov 15  
 Mar 22      Jul 26      Nov 29  
 Apr 5      Aug 9      Dec 13  
 Apr 19      Aug 23      Dec 27  
 May 3      Sep 6

### Challenge Test

#### IN-PERSON Manchester, NH

Jan 12      Aug 11  
 Feb 17      Sep 15  
 Mar 10      Oct 13  
 Apr 14      Nov 10  
 May 12      Dec 1  
 Jul 5

#### ON-LINE Start time: 10am E.S.T.

Jan 11      May 17      Sep 20  
 Jan 25      May 31      Oct 4  
 Feb 8      Jun 14      Oct 18  
 Feb 22      Jun 28      Nov 1  
 Mar 8      Jul 12      Nov 15  
 Mar 22      Jul 26      Nov 29  
 Apr 5      Aug 9      Dec 13  
 Apr 19      Aug 23      Dec 27  
 May 3      Sep 6

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.



### 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

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

### IPC-A-600 "The Acceptability of Printed Boards"

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

#### IPC-A-600 CIS Certification

Feb 13 - 15 ... Toronto, ON  
 Mar 1 - 3 ... San Jose, CA  
 Mar 22 - 24 ... San Diego, CA  
 Mar 27 - 29 ... Schaumburg, IL  
 Apr 17 - 19 ... Seattle, WA  
 May 10 - 12 ... Toronto, ON  
 May 30 - Jun 1 ... Manchester, NH  
 Jul 19 - 21 ... Schaumburg, IL  
 Aug 21 - 23 ... San Jose, CA  
 Aug 30 - Sep 1 ... San Diego, CA  
 Sep 11 - 13 ... Toronto, ON  
 Sep 13 - 15 ... Seattle, WA  
 Nov 22 - 24 ... Toronto, ON  
 Nov 27 - 29 ... San Jose, CA  
 Dec 5 - 7 ... Manchester, NH

#### ON-LINE Start time: 10am E.S.T.

Jan 3 - 5  
 Mar 6 - 8  
 May 8 - 10  
 Jul 5 - 7  
 Sep 6 - 8  
 Nov 6 - 8

#### IPC-A-600 CIS Recertification

Feb 13 - 15 ... Toronto, ON  
 Mar 1 - 3 ... San Jose, CA  
 Mar 22 - 24 ... San Diego, CA  
 Mar 27 - 29 ... Schaumburg, IL  
 Apr 17 - 19 ... Seattle, WA  
 May 10 - 12 ... Toronto, ON  
 May 30 - Jun 1 ... Manchester, NH  
 Jul 19 - 21 ... Schaumburg, IL  
 Aug 21 - 23 ... San Jose, CA  
 Aug 30 - Sep 1 ... San Diego, CA  
 Sep 11 - 13 ... Toronto, ON  
 Sep 13 - 15 ... Seattle, WA  
 Nov 22 - 24 ... Toronto, ON  
 Nov 27 - 29 ... San Jose, CA  
 Dec 5 - 7 ... Manchester, NH

#### ON-LINE Start time: 10am E.S.T.

Jan 3 - 5  
 Mar 6 - 8  
 May 8 - 10  
 Jul 5 - 7  
 Sep 6 - 8  
 Nov 6 - 8

### Challenge Test

#### IN-PERSON Manchester, NH

Jan 12      Aug 11  
 Feb 17      Sep 15  
 Mar 10      Oct 13  
 Apr 14      Nov 10  
 May 12      Dec 1  
 Jul 5

#### ON-LINE Start time: 10am E.S.T.

Jan 11      May 17      Sep 20  
 Jan 25      May 31      Oct 4  
 Feb 8      Jun 14      Oct 18  
 Feb 22      Jun 28      Nov 1  
 Mar 8      Jul 12      Nov 15  
 Mar 22      Jul 26      Nov 29  
 Apr 5      Aug 9      Dec 13  
 Apr 19      Aug 23      Dec 27  
 May 3      Sep 6

### Challenge Test

#### IN-PERSON Manchester, NH

Jan 12      Aug 11  
 Feb 17      Sep 15  
 Mar 10      Oct 13  
 Apr 14      Nov 10  
 May 12      Dec 1  
 Jul 5

#### ON-LINE Start time: 10am E.S.T.

Jan 11      May 17      Sep 20  
 Jan 25      May 31      Oct 4  
 Feb 8      Jun 14      Oct 18  
 Feb 22      Jun 28      Nov 1  
 Mar 8      Jul 12      Nov 15  
 Mar 22      Jul 26      Nov 29  
 Apr 5      Aug 9      Dec 13  
 Apr 19      Aug 23      Dec 27  
 May 3      Sep 6

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.



### 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

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

### IPC-A-600 "The Acceptability of Printed Boards"

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

#### IPC-A-600 CSE Certification

Feb 13 - 15 . . . Toronto, ON  
 Mar 1 - 3 . . . . . San Jose, CA  
 Mar 27 - 29 . . . Schaumburg, IL  
 May 10 - 12 . . . Toronto, ON  
 May 30 - Jun 1 Manchester, NH  
 Jul 19 - 21 . . . . . Schaumburg, IL  
 Aug 21 - 23 . . . San Jose, CA  
 Sep 11 - 13 . . . Toronto, ON  
 Nov 22 - 24 . . . Toronto, ON  
 Nov 27 - 29 . . . San Jose, CA  
 Dec 5 - 7 . . . . . Manchester, NH

#### ON-LINE Start time: 10am E.S.T.

Jan 3 - 5  
 Mar 6 - 8  
 May 8 - 10  
 Jul 5 - 7  
 Sep 6 - 8  
 Nov 6 - 8

#### IPC-A-600 CSE Recertification

Feb 13 - 15 . . . Toronto, ON  
 Mar 1 - 3 . . . . . San Jose, CA  
 Mar 27 - 29 . . . Schaumburg, IL  
 May 10 - 12 . . . Toronto, ON  
 May 30 - Jun 1 Manchester, NH  
 Jul 19 - 21 . . . . . Schaumburg, IL  
 Aug 21 - 23 . . . San Jose, CA  
 Sep 11 - 13 . . . Toronto, ON  
 Nov 22 - 24 . . . Toronto, ON  
 Nov 27 - 29 . . . San Jose, CA  
 Dec 5 - 7 . . . . . Manchester, NH

#### ON-LINE Start time: 10am E.S.T.

Jan 3 - 5  
 Mar 6 - 8  
 May 8 - 10  
 Jul 5 - 7  
 Sep 6 - 8  
 Nov 6 - 8

### Challenge Test

#### IN-PERSON Manchester, NH

Jan 12      Aug 11  
 Feb 17      Sep 15  
 Mar 10      Oct 13  
 Apr 14      Nov 10  
 May 12      Dec 1  
 Jul 5

#### ON-LINE Start time: 10am E.S.T.

Jan 11      May 17      Sep 20  
 Jan 25      May 31      Oct 4  
 Feb 8      Jun 14      Oct 18  
 Feb 22      Jun 28      Nov 1  
 Mar 8      Jul 12      Nov 15  
 Mar 22      Jul 26      Nov 29  
 Apr 5      Aug 9      Dec 13  
 Apr 19      Aug 23      Dec 27  
 May 3      Sep 6

### Challenge Test

#### IN-PERSON Manchester, NH

Jan 12      Aug 11  
 Feb 17      Sep 15  
 Mar 10      Oct 13  
 Apr 14      Nov 10  
 May 12      Dec 1  
 Jul 5

#### ON-LINE Start time: 10am E.S.T.

Jan 11      May 17      Sep 20  
 Jan 25      May 31      Oct 4  
 Feb 8      Jun 14      Oct 18  
 Feb 22      Jun 28      Nov 1  
 Mar 8      Jul 12      Nov 15  
 Mar 22      Jul 26      Nov 29  
 Apr 5      Aug 9      Dec 13  
 Apr 19      Aug 23      Dec 27  
 May 3      Sep 6

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.



### 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

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

### IPC-7711 "Rework of Electronic Assemblies"

### IPC-7721 "Repair & Modification of Printed Boards and Electronic Assemblies"

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

#### IPC-7711/7721 CIT Certification

Jan 16 - 19 . . . Palm Bay, FL	Jul 10 - 14 . . . Schaumburg, IL
Jan 16 - 19 . . . Seattle, WA	Jul 24 - 28 . . . Manchester, NH
Jan 30 - Feb 3 . . . Minneapolis, MN	Jul 24 - 27 . . . Palm Bay, FL
Feb 6 - 10 . . . Anaheim, CA	Aug 21 - 25 . . . Anaheim, CA
Feb 13 - 17 . . . Manchester, NH	Oct 23 - 27 . . . San Jose, CA
Feb 20 - 24 . . . San Jose, CA	Oct 23 - 27 . . . Toronto, ON
Mar 13 - 17 . . . Schaumburg, IL	Oct 30 - Nov 3 . . . Manchester, NH
Mar 13 - 17 . . . Toronto, ON	Oct 30 - Nov 3 . . . Schaumburg, IL
Apr 10 - 14 . . . San Jose, CA	Dec 4 - 8 . . . Manchester, NH
Apr 24 - 28 . . . Manchester, NH	Dec 4 - 7 . . . Palm Bay, FL
May 8 - 12 . . . Minneapolis, MN	Dec 11 - 15 . . . Minneapolis, MN
Jun 12 - 16 . . . San Jose, CA	Dec 11 - 15 . . . San Jose, CA
Jun 12 - 16 . . . Toronto, ON	Dec 11 - 15 . . . Toronto, ON
Jun 19 - 22 . . . Seattle, WA	

#### IPC-7711/7721 CIT Recertification

Jan 30 - 31 . . . Seattle, WA	Aug 21 - 22 . . . Manchester, NH
Feb 1 - 2 . . . . . Manchester, NH	Sep 14 - 15 . . . Toronto, ON
Feb 7 - 8 . . . . . Palm Bay, FL	Sep 20 - 21 . . . Schaumburg, IL
Feb 16 - 17 . . . Toronto, ON	Oct 2 - 3 . . . . . Manchester, NH
Mar 2 - 3 . . . . . Schaumburg, IL	Oct 24 - 25 . . . Palm Bay, FL
Mar 23 - 24 . . . Minneapolis, MN	Nov 20 - 21 . . . Manchester, NH
Apr 3 - 4 . . . . . Manchester, NH	Nov 20 - 21 . . . Toronto, ON
May 8 - 9 . . . . . Toronto, ON	Dec 12 - 13 . . . Schaumburg, IL
Jun 1 - 2 . . . . . Manchester, NH	Dec 18 - 19 . . . Seattle, WA
Jul 24 - 25 . . . . . Minneapolis, MN	

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.





### 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

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

### IPC-7711 "Rework of Electronic Assemblies"

### IPC-7721 "Repair & Modification of Printed Boards and Electronic Assemblies"

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

#### IPC-7711/7721 CIS Certification

Jan 16 - 19 . . . Palm Bay, FL	Jul 10 - 14 . . . Schaumburg, IL
Jan 16 - 19 . . . Seattle, WA	Jul 24 - 28 . . . Manchester, NH
Feb 6 - 10 . . . Anaheim, CA	Jul 24 - 27 . . . Palm Bay, FL
Feb 13 - 17 . . . Manchester, NH	Jul 31 - Aug 4 . Watertown, CT
Feb 20 - 24 . . . San Jose, CA	Aug 21 - 25 . . Anaheim, CA
Mar 13 - 17 . . . Schaumburg, IL	Oct 23 - 27 . . San Jose, CA
Mar 13 - 17 . . . Toronto, ON	Oct 23 - 27 . . Toronto, ON
Mar 20 - 24 . . . Watertown, CT	Oct 30 - Nov 3 Manchester, NH
Apr 10 - 14 . . . San Jose, CA	Oct 30 - Nov 3 Schaumburg, IL
Apr 24 - 28 . . . Manchester, NH	Dec 4 - 8 . . . . Manchester, NH
Jun 12 - 16 . . . San Jose, CA	Dec 4 - 7 . . . . Palm Bay, FL
Jun 12 - 16 . . . Toronto, ON	Dec 11 - 15 . . San Jose, CA
Jun 19 - 22 . . . Seattle, WA	Dec 11 - 15 . . Toronto, ON

#### IPC-7711/7721 CIS Recertification

Jan 30 - 31 . . . Seattle, WA	Sep 14 - 15 . . . Toronto, ON
Feb 1 - 2 . . . . Manchester, NH	Sep 20 - 21 . . . Schaumburg, IL
Feb 7 - 8 . . . . Palm Bay, FL	Oct 2 - 3 . . . . Manchester, NH
Feb 16 - 17 . . . Toronto, ON	Oct 24 - 25 . . . Palm Bay, FL
Mar 2 - 3 . . . . Schaumburg, IL	Nov 20 - 21 . . . Manchester, NH
Apr 3 - 4 . . . . Manchester, NH	Nov 20 - 21 . . . Toronto, ON
May 8 - 9 . . . . Toronto, ON	Nov 27 - 28 . . . Watertown, CT
Jun 1 - 2 . . . . Manchester, NH	Dec 12 - 13 . . . Schaumburg, IL
Aug 21 - 22 . . . Manchester, NH	Dec 18 - 19 . . . Seattle, WA

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.



### 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

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

### IPC-7711 "Rework of Electronic Assemblies"

### IPC-7721 "Repair & Modification of Printed Boards and Electronic Assemblies"

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

#### IPC-7711/7721 CSE Certification

Jan 16 - 19 ... Palm Bay, FL	Jul 10 - 14 ... Schaumburg, IL
Jan 16 - 19 ... Seattle, WA	Jul 24 - 28 ... Manchester, NH
Jan 30 - Feb 3 ... Minneapolis, MN	Jul 24 - 27 ... Palm Bay, FL
Feb 6 - 10 ... Anaheim, CA	Aug 21 - 25 ... Anaheim, CA
Feb 13 - 17 ... Manchester, NH	Oct 23 - 27 ... San Jose, CA
Feb 20 - 24 ... San Jose, CA	Oct 23 - 27 ... Toronto, ON
Mar 13 - 17 ... Schaumburg, IL	Oct 30 - Nov 3 ... Manchester, NH
Mar 13 - 17 ... Toronto, ON	Oct 30 - Nov 3 ... Schaumburg, IL
Apr 10 - 14 ... San Jose, CA	Dec 4 - 8 ... Manchester, NH
Apr 24 - 28 ... Manchester, NH	Dec 4 - 7 ... Palm Bay, FL
May 8 - 12 ... Minneapolis, MN	Dec 11 - 15 ... Minneapolis, MN
Jun 12 - 16 ... San Jose, CA	Dec 11 - 15 ... San Jose, CA
Jun 12 - 16 ... Toronto, ON	Dec 11 - 15 ... Toronto, ON
Jun 19 - 22 ... Seattle, WA	

#### IPC-7711/7721 CSE Recertification

Jan 30 - 31 ... Seattle, WA	Aug 21 - 22 ... Manchester, NH
Feb 1 - 2 ... Manchester, NH	Sep 14 - 15 ... Toronto, ON
Feb 7 - 8 ... Palm Bay, FL	Sep 20 - 21 ... Schaumburg, IL
Feb 16 - 17 ... Toronto, ON	Oct 2 - 3 ... Manchester, NH
Mar 2 - 3 ... Schaumburg, IL	Oct 24 - 25 ... Palm Bay, FL
Mar 23 - 24 ... Minneapolis, MN	Nov 20 - 21 ... Manchester, NH
Apr 3 - 4 ... Manchester, NH	Nov 20 - 21 ... Toronto, ON
May 8 - 9 ... Toronto, ON	Dec 12 - 13 ... Schaumburg, IL
Jun 1 - 2 ... Manchester, NH	Dec 18 - 19 ... Seattle, WA
Jul 24 - 25 ... Minneapolis, MN	

#### Challenge Test

##### IN-PERSON Manchester, NH

Jan 12	Aug 11
Feb 17	Sep 15
Mar 10	Oct 13
Apr 14	Nov 10
May 12	Dec 1
Jul 5	

##### ON-LINE Start time: 10am E.S.T.

Jan 11	May 17	Sep 20
Jan 25	May 31	Oct 4
Feb 8	Jun 14	Oct 18
Feb 22	Jun 28	Nov 1
Mar 8	Jul 12	Nov 15
Mar 22	Jul 26	Nov 29
Apr 5	Aug 9	Dec 13
Apr 19	Aug 23	Dec 27
May 3	Sep 6	

#### Challenge Test

##### IN-PERSON Manchester, NH

Jan 12	Aug 11
Feb 17	Sep 15
Mar 10	Oct 13
Apr 14	Nov 10
May 12	Dec 1
Jul 5	

##### ON-LINE Start time: 10am E.S.T.

Jan 11	May 17	Sep 20
Jan 25	May 31	Oct 4
Feb 8	Jun 14	Oct 18
Feb 22	Jun 28	Nov 1
Mar 8	Jul 12	Nov 15
Mar 22	Jul 26	Nov 29
Apr 5	Aug 9	Dec 13
Apr 19	Aug 23	Dec 27
May 3	Sep 6	

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.



### 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

## IPC-6012 Certified IPC Trainer (CIT)

### IPC-6012 "Qualification and Performance Specification for Rigid Printed Boards"

Become an expert in the design, specifications, fabrication and inspection of printed circuit boards.

#### IPC-6012 CIT Certification

##### ON-LINE Start time: 10am E.S.T.

Feb 27 - Mar 2  
Jun 19 - 22  
Aug 21 - 24

#### Challenge Test

##### IN-PERSON Manchester, NH

Jan 12  
Feb 17  
Mar 10  
Apr 14  
May 12  
Jul 5

Aug 11  
Sep 15  
Oct 13  
Nov 10  
Dec 1

##### ON-LINE Start time: 10am E.S.T.

Jan 11  
Jan 25  
Feb 8  
Feb 22  
Mar 8  
Mar 22  
Apr 5  
Apr 19  
May 3

May 17  
May 31  
Jun 14  
Jun 28  
Jul 12  
Jul 26  
Aug 9  
Aug 23  
Sep 6

Sep 20  
Oct 4  
Oct 18  
Nov 1  
Nov 15  
Nov 29  
Dec 13  
Dec 27

#### IPC-6012 CIT Recertification

##### ON-LINE Start time: 10am E.S.T.

Feb 27 - Mar 2  
Jun 19 - 22  
Aug 21 - 24

#### Challenge Test

##### IN-PERSON Manchester, NH

Jan 12  
Feb 17  
Mar 10  
Apr 14  
May 12  
Jul 5

Aug 11  
Sep 15  
Oct 13  
Nov 10  
Dec 1

##### ON-LINE Start time: 10am E.S.T.

Jan 11  
Jan 25  
Feb 8  
Feb 22  
Mar 8  
Mar 22  
Apr 5  
Apr 19  
May 3

May 17  
May 31  
Jun 14  
Jun 28  
Jul 12  
Jul 26  
Aug 9  
Aug 23  
Sep 6

Sep 20  
Oct 4  
Oct 18  
Nov 1  
Nov 15  
Nov 29  
Dec 13  
Dec 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.



### 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

## IPC-6012 Certified IPC Specialist (CIS)

### IPC-6012 "Qualification and Performance Specification for Rigid Printed Boards"

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

#### IPC-6012 CIS Certification

##### ON-LINE Start time: 10am E.S.T.

Feb 27 - Mar 2  
Jun 19 - 22  
Aug 21 - 24

#### Challenge Test

##### IN-PERSON Manchester, NH

Jan 12  
Feb 17  
Mar 10  
Apr 14  
May 12  
Jul 5

Aug 11  
Sep 15  
Oct 13  
Nov 10  
Dec 1

##### ON-LINE Start time: 10am E.S.T.

Jan 11  
Jan 25  
Feb 8  
Feb 22  
Mar 8  
Mar 22  
Apr 5  
Apr 19  
May 3

May 17  
May 31  
Jun 14  
Jun 28  
Jul 12  
Jul 26  
Aug 9  
Aug 23  
Sep 6

#### IPC-6012 CIS Recertification

##### ON-LINE Start time: 10am E.S.T.

Feb 27 - Mar 2  
Jun 19 - 22  
Aug 21 - 24

#### Challenge Test

##### IN-PERSON Manchester, NH

Jan 12  
Feb 17  
Mar 10  
Apr 14  
May 12  
Jul 5

Aug 11  
Sep 15  
Oct 13  
Nov 10  
Dec 1

##### ON-LINE Start time: 10am E.S.T.

Jan 11  
Jan 25  
Feb 8  
Feb 22  
Mar 8  
Mar 22  
Apr 5  
Apr 19  
May 3

May 17  
May 31  
Jun 14  
Jun 28  
Jul 12  
Jul 26  
Aug 9  
Aug 23  
Sep 6

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.





### 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

## IPC-6012 Certified Standards Expert (CSE)

### IPC-6012 "Qualification and Performance Specification for Rigid Printed Boards"

Become a subject matter expert in IPC-A-6012.

#### IPC-6012 CSE Certification

##### ON-LINE Start time: 10am E.S.T.

Feb 27 - Mar 2  
Jun 19 - 22  
Aug 21 - 24

#### Challenge Test

##### IN-PERSON Manchester, NH

Jan 12  
Feb 17  
Mar 10  
Apr 14  
May 12  
Jul 5

Aug 11  
Sep 15  
Oct 13  
Nov 10  
Dec 1

##### ON-LINE Start time: 10am E.S.T.

Jan 11  
Jan 25  
Feb 8  
Feb 22  
Mar 8  
Mar 22  
Apr 5  
Apr 19  
May 3

May 17  
May 31  
Jun 14  
Jun 28  
Jul 12  
Jul 26  
Aug 9  
Aug 23  
Sep 6

Sep 20  
Oct 4  
Oct 18  
Nov 1  
Nov 15  
Nov 29  
Dec 13  
Dec 27

#### IPC-6012 CSE Recertification

##### ON-LINE Start time: 10am E.S.T.

Feb 27 - Mar 2  
Jun 19 - 22  
Aug 21 - 24

#### Challenge Test

##### IN-PERSON Manchester, NH

Jan 12  
Feb 17  
Mar 10  
Apr 14  
May 12  
Jul 5

Aug 11  
Sep 15  
Oct 13  
Nov 10  
Dec 1

##### ON-LINE Start time: 10am E.S.T.

Jan 11  
Jan 25  
Feb 8  
Feb 22  
Mar 8  
Mar 22  
Apr 5  
Apr 19  
May 3

May 17  
May 31  
Jun 14  
Jun 28  
Jul 12  
Jul 26  
Aug 9  
Aug 23  
Sep 6

Sep 20  
Oct 4  
Oct 18  
Nov 1  
Nov 15  
Nov 29  
Dec 13  
Dec 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.



### 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

## IPC Interconnect Designer Certification (CID and CID+)

### IPC-2221 "Generic Standard on Printed Board Design"

### IPC-2222 "Sectional Standard on Rigid Organic Printed Boards"

*These courses go 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.*

#### IPC CID Certification

**ON-LINE** Start time: 10am E.S.T.

#### FOR LECTURE AND EXAM ONLY\*

Jan 16 - 19  
 Feb 6 - 9  
 Mar 13 - 16  
 Apr 17 - 20  
 May 15 - 18  
 Jun 12 - 15  
 Jul 17 - 20  
 Aug 14 - 17  
 Sep 11 - 14  
 Oct 2 - 5  
 Nov 13 - 16  
 Dec 4 - 7

#### IPC CID+ Certification

**ON-LINE** Start time: 10am E.S.T.

#### FOR LECTURE AND EXAM ONLY\*

Feb 13 - 16  
 Mar 27 - 30  
 May 22 - 25  
 Jun 26 - 29  
 Sep 25 - 28  
 Dec 11 - 14

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.



### 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

## IDEA Counterfeit Component Training

IDEA-TRN-2000 "Inspection for Visual Indicators of Counterfeit Parts"

IDEA-STD-1010 "Acceptability of Electronic Components Distributed in the Open Market"

### IDEA Counterfeit Component Workshop

IDEA-TRN-2000 Inspection for Visual Indicators of Counterfeit Parts  
*A basic introduction to Counterfeit Mitigation and to IDEA-STD-1010*

#### ON-LINE Start time: 10am E.S.T.

Jan 4  
Apr 7  
Aug 2  
Nov 22

### IDEA Essentials

IDEA-STD-1010 "Acceptability of Electronic Components Distributed in the Open Market"

Jan 23 - 24 . . . Peabody, MA  
Apr 17 - 18 . . . Peabody, MA  
Aug 10 - 11 . . . Peabody, MA  
Oct 16 - 17 . . . Schaumburg, IL

#### ON-LINE Start time: 10am E.S.T.

Jan 5 - 6  
Apr 5 - 6  
Aug 3 - 4  
Nov 20 - 21

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.



### 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

## Hand Soldering Certification

### J-STD-001 "Requirements for Soldered Electrical & Electronic Assemblies"

*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.*

### Hand Soldering Certification

Jan 9 - 13 . . . . . Syracuse, NY	Jun 26 - 30 . . . . . Watertown, CT
Jan 9 - 13 . . . . . Schaumburg, IL	Jul 10 - 14 . . . . . Anaheim, CA
Jan 16 - 20 . . . . . Manchester, NH	Jul 17 - 21 . . . . . Pittsburgh, PA
Jan 16 - 20 . . . . . San Jose, CA	Jul 17 - 21 . . . . . San Jose, CA
Jan 23 - 27 . . . . . Seattle, WA	Jul 24 - 28 . . . . . Rochester, NY
Jan 23 - 27 . . . . . Toronto, ON	Jul 24 - 28 . . . . . Seattle, WA
Feb 6 - 10 . . . . . Manchester, NH	Jul 24 - 28 . . . . . Toronto, ON
Feb 6 - 10 . . . . . Buffalo, NY	Jul 31 - Aug 4 . . . . . Manchester, NH
Feb 13 - 17 . . . . . Schaumburg, IL	Jul 31 - Aug 4 . . . . . Palm Bay, FL
Feb 20 - 24 . . . . . Minneapolis, MN	Aug 7 - 11 . . . . . Long Island, NY
Feb 27 - Mar 3 . . . . . Long Island, NY	Aug 7 - 11 . . . . . Minneapolis, MN
Feb 27 - Mar 3 . . . . . Manchester, NH	Aug 7 - 11 . . . . . Schaumburg, IL
Mar 6 - 10 . . . . . San Diego, CA	Aug 14 - 18 . . . . . Rochester, NY
Mar 6 - 10 . . . . . San Jose, CA	Aug 21 - 25 . . . . . Buffalo, NY
Mar 6 - 10 . . . . . Schaumburg, IL	Sep 11 - 15 . . . . . Manchester, NH
Mar 20 - 24 . . . . . Manchester, NH	Sep 11 - 15 . . . . . Portland, OR
Mar 20 - 24 . . . . . Portland, OR	Sep 11 - 15 . . . . . San Diego, CA
Mar 20 - 24 . . . . . Rochester, NY	Sep 18 - 22 . . . . . Kansas City, MO
Mar 27 - 31 . . . . . Anaheim, CA	Sep 25 - 29 . . . . . Anaheim, CA
Mar 27 - 31 . . . . . Toronto, ON	Sep 25 - 29 . . . . . San Jose, CA
Apr 3 - 7 . . . . . Binghamton, NY	Sep 25 - 29 . . . . . Toronto, ON
Apr 3 - 7 . . . . . Schaumburg, IL	Sep 25 - 29 . . . . . Watertown, CT
Apr 3 - 7 . . . . . Seattle, WA	Oct 2 - 6 . . . . . Manchester, NH
Apr 3 - 7 . . . . . Palm Bay, FL	Oct 2 - 6 . . . . . Ottawa, ON
Apr 10 - 14 . . . . . Kansas City, MO	Oct 9 - 13 . . . . . San Jose, CA
Apr 10 - 14 . . . . . Manchester, NH	Oct 16 - 20 . . . . . Palm Bay, FL
Apr 10 - 14 . . . . . Watertown, CT	Oct 16 - 20 . . . . . Syracuse, NY
Apr 17 - 21 . . . . . Minneapolis, MN	Oct 23 - 27 . . . . . Minneapolis, MN
Apr 17 - 21 . . . . . Syracuse, NY	Oct 23 - 27 . . . . . Pittsburgh, PA
Apr 24 - 28 . . . . . Pittsburgh, PA	Oct 30 - Nov 3 . . . . . Binghamton, NY
May 1 - 5 . . . . . Manchester, NH	Nov 6 - 10 . . . . . Toronto, ON
May 1 - 5 . . . . . San Jose, CA	Nov 13 - 17 . . . . . Buffalo, NY
May 15 - 19 . . . . . Buffalo, NY	Nov 13 - 17 . . . . . Schaumburg, IL
May 15 - 19 . . . . . Ottawa, ON	Nov 27 - Dec 1 . . . . . Manchester, NH
May 22 - 26 . . . . . San Diego, CA	Dec 4 - 8 . . . . . Anaheim, CA
May 22 - 26 . . . . . Schaumburg, IL	Dec 4 - 8 . . . . . Rochester, NY
Jun 5 - 9 . . . . . Portland, OR	Dec 4 - 8 . . . . . San Jose, CA
Jun 5 - 9 . . . . . Toronto, ON	Dec 11 - 15 . . . . . Seattle, WA
Jun 12 - 16 . . . . . Schaumburg, IL	Dec 11 - 15 . . . . . Watertown, CT
Jun 12 - 16 . . . . . Binghamton, NY	Dec 18 - 22 . . . . . Manchester, NH
Jun 12 - 16 . . . . . Manchester, NH	Dec 18 - 22 . . . . . San Diego, CA

### Hand Soldering Recertification

Jan 6 . . . . . Toronto, ON	Jul 14 . . . . . Toronto, ON
Jan 20 . . . . . Kansas City, MO	Aug 23 . . . . . Manchester, NH
Feb 3 . . . . . Manchester, NH	Sep 22 . . . . . Watertown, CT
Mar 1 . . . . . Schaumburg, IL	Oct 4 . . . . . Toronto, ON
Mar 17 . . . . . Manchester, NH	Oct 20 . . . . . Manchester, NH
Mar 17 . . . . . San Jose, CA	Oct 27 . . . . . Seattle, WA
Apr 7 . . . . . Manchester, NH	Nov 6 . . . . . Schaumburg, IL
May 12 . . . . . Manchester, NH	Nov 10 . . . . . Watertown, CT
May 24 . . . . . Toronto, ON	Nov 17 . . . . . Kansas City, MO
Jun 9 . . . . . Manchester, NH	Nov 21 . . . . . Manchester, NH
Jun 21 . . . . . Schaumburg, IL	
Jul 7 . . . . . Manchester, NH	

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.



### 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

## Advanced Surface Mount Micro Hand Soldering

J-STD-001 / IPC-A-610 / IPC-7711

*Learn proper techniques for placement, soldering and rework of fine pitch and multi-leaded extra fine pitch surface mount components*

### Advanced SMT Micro Hand Soldering Certification

Mar 30 - 31 . . . Schaumburg, IL	Jun 19 - 20 . . . Manchester, NH
May 1 - 2 . . . . . Manchester, NH	Sep 7 - 8 . . . . . San Jose, CA
May 22 - 23 . . . San Jose, CA	Oct 26 - 27 . . . Manchester, NH
Jun 1 - 2 . . . . . Schaumburg, IL	Dec 14 - 15 . . . Schaumburg, IL

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.





### 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

## PCB Fundamentals Training

IPC-A-610 "The Acceptability of Electronic Assemblies"

IPC/WHMA-A-620 "Requirements and Acceptance for Cable and Wire Harness Assemblies"

### Crimp Terminations Certification

Aug 18 . . . . . Manchester, NH  
Dec 29 . . . . . Manchester, NH

### Crimp Terminations Recertification

Aug 18 . . . . . Manchester, NH  
Dec 29 . . . . . Manchester, NH

### Electrostatic Discharge (ESD) Training

**ON-LINE** Start time: 10am E.S.T.

Feb 3  
Apr 28  
Jun 2  
Oct 13

### Component ID Training

**ON-LINE** Start time: 10am E.S.T.

Jan 13  
Apr 21  
Jun 1  
Oct 6

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.