



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

Aug 16 - 19	Minneapolis, MN
Aug 23 - 26	Anaheim, CA
Sep 13 - 16	Rochester, NY
Sep 13 - 16	San Diego, CA
Oct 4 - 7	Buffalo, NY
Oct 4 - 7	Watertown, CT
Oct 11 - 14	Manchester, NH
Oct 18 - 21	Long Island, NY
Oct 18 - 21	Schaumburg, IL
Oct 25 - 28	Seattle, WA
Oct 25 - 28	Toronto, ON
Nov 1 - 4	Minneapolis, MN
Nov 1 - 4	Palm Bay, FL
Nov 8 - 11	Akron, OH
Nov 8 - 11	Ottawa, ON
Nov 15 - 18	Kansas City, MO
Nov 29 - Dec 2	Binghamton, NY
Nov 29 - Dec 2	Pittsburgh, PA
Dec 6 - 9	Anaheim, CA
Dec 6 - 9	Manchester, NH

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

Jan 18 - 21
Feb 8 - 11
Mar 1 - 4
Mar 22 - 25
Apr 12 - 15
May 3 - 6
May 24 - 27
Jun 14 - 17
Jul 12 - 15
Aug 3 - 6
Aug 23 - 26
Sep 13 - 16
Oct 4 - 7
Oct 25 - 28
Nov 8 - 11
Dec 13 - 16

#### Challenge Test

Jan 21	Manchester, NH
Feb 5	Manchester, NH
Feb 19	Manchester, NH
Mar 26	Manchester, NH
Apr 16	Manchester, NH
May 7	Manchester, NH
May 21	Manchester, NH
Jun 30	Manchester, NH
Jul 22	Manchester, NH
Aug 6	Manchester, NH
Sep 23	Manchester, NH
Oct 21	Manchester, NH
Nov 23	Manchester, NH
Dec 20	Manchester, NH

#### Challenge Test

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

Jan 8	Jul 1
Jan 29	Jul 23
Feb 19	Aug 13
Feb 26	Aug 19
Mar 4	Sep 3
Mar 19	Sep 24
Apr 9	Oct 15
Apr 29	Nov 5
May 21	Dec 3
Jun 11	Dec 17

#### IPC-A-610 CIT Recertification

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

Aug 23 - 24	Kansas City, MO
Aug 23 - 24	Schaumburg, IL
Sep 7 - 8	Manchester, NH
Sep 9 - 10	Binghamton, NY
Sep 13 - 14	Palm Bay, FL
Sep 20 - 21	Rochester, NY
Oct 4 - 5	Manchester, NH
Oct 4 - 5	Seattle, WA
Oct 7 - 8	San Diego, CA
Oct 12 - 13	Buffalo, NY
Nov 2 - 3	Schaumburg, IL
Nov 8 - 9	Manchester, NH
Nov 8 - 9	Toronto, ON
Nov 15 - 16	Minneapolis, MN
Nov 15 - 16	Watertown, CT

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

Jan 4 - 5
Jan 27 - 28
Feb 15 - 16
Mar 8 - 9
Mar 29 - 30
Apr 19 - 20
May 10 - 11
Jun 7 - 8
Jun 28 - 29
Jul 19 - 20
Aug 9 - 10
Aug 23 - 24
Sep 13 - 14
Oct 4 - 5
Oct 25 - 26
Nov 15 - 16
Dec 6 - 7
Dec 27 - 28

#### Challenge Test

Jan 21	Manchester, NH
Feb 5	Manchester, NH
Feb 19	Manchester, NH
Mar 26	Manchester, NH
Apr 16	Manchester, NH
May 7	Manchester, NH
May 21	Manchester, NH
Jun 30	Manchester, NH
Jul 22	Manchester, NH
Aug 6	Manchester, NH
Sep 23	Manchester, NH
Oct 21	Manchester, NH
Nov 23	Manchester, NH
Dec 20	Manchester, NH

#### Challenge Test

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

Jan 8	Jul 1
Jan 29	Jul 23
Feb 19	Aug 13
Feb 26	Aug 19
Mar 4	Sep 3
Mar 19	Sep 24
Apr 9	Oct 15
Apr 29	Nov 5
May 21	Dec 3
Jun 11	Dec 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.

#### 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.



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

Jul 19 - 21 . . . . . Schaumburg, IL  
 Jul 26 - 28 . . . . . Manchester, NH  
 Aug 9 - 11 . . . . . Manchester, NH  
 Aug 9 - 11 . . . . . Seattle, WA  
 Aug 23 - 25 . . . . . Anaheim, CA  
 Sep 7 - 9 . . . . . Syracuse, NY  
 Sep 13 - 15 . . . . . Rochester, NY  
 Sep 13 - 15 . . . . . San Diego, CA  
 Sep 20 - 22 . . . . . Manchester, NH  
 Sep 27 - 29 . . . . . Manchester, NH  
 Oct 4 - 6 . . . . . Atlanta, GA  
 Oct 4 - 6 . . . . . Buffalo, NY  
 Oct 4 - 6 . . . . . Watertown, CT  
 Oct 18 - 20 . . . . . Long Island, NY  
 Oct 18 - 20 . . . . . Manchester, NH  
 Oct 18 - 20 . . . . . Schaumburg, IL  
 Oct 25 - 27 . . . . . Seattle, WA  
 Oct 25 - 27 . . . . . Toronto, ON  
 Nov 1 - 3 . . . . . Palm Bay, FL  
 Nov 8 - 10 . . . . . Akron, OH  
 Nov 8 - 10 . . . . . Ottawa, ON  
 Nov 8 - 10 . . . . . Santa Clara, CA  
 Nov 15 - 17 . . . . . Kansas City, MO  
 Nov 15 - 17 . . . . . Manchester, NH  
 Nov 29 - Dec 1 . . . . . Binghamton, NY  
 Nov 29 - Dec 1 . . . . . Pittsburgh, PA  
 Dec 6 - 8 . . . . . Anaheim, CA

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

Jan 18 - 20  
 Feb 8 - 10  
 Mar 1 - 3  
 Mar 22 - 24  
 Apr 12 - 14  
 May 3 - 5  
 May 24 - 26  
 Jun 14 - 16  
 Jul 12 - 14  
 Aug 3 - 5  
 Aug 23 - 25  
 Sep 13 - 15  
 Oct 4 - 6  
 Oct 25 - 27  
 Nov 8 - 10  
 Dec 13 - 15

#### Challenge Test

Jan 21 . . . . . Manchester, NH  
 Feb 5 . . . . . Manchester, NH  
 Feb 19 . . . . . Manchester, NH  
 Mar 26 . . . . . Manchester, NH  
 Apr 16 . . . . . Manchester, NH  
 May 7 . . . . . Manchester, NH  
 May 21 . . . . . Manchester, NH  
 Jun 30 . . . . . Manchester, NH  
 Jul 22 . . . . . Manchester, NH  
 Aug 6 . . . . . Manchester, NH  
 Sep 23 . . . . . Manchester, NH  
 Oct 21 . . . . . Manchester, NH  
 Nov 23 . . . . . Manchester, NH  
 Dec 20 . . . . . Manchester, NH

#### Challenge Test

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

Jan 8                      Jul 1  
 Jan 29                    Jul 23  
 Feb 19                    Aug 13  
 Feb 26                    Aug 19  
 Mar 4                     Sep 3  
 Mar 19                    Sep 24  
 Apr 9                     Oct 15  
 Apr 29                    Nov 5  
 May 21                    Dec 3  
 Jun 11                    Dec 17

#### IPC-A-610 CIS Recertification

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

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

Jan 18 - 20  
 Feb 8 - 10  
 Mar 1 - 3  
 Mar 22 - 24  
 Apr 12 - 14  
 May 3 - 5  
 May 24 - 26  
 Jun 14 - 16  
 Jul 12 - 14  
 Aug 3 - 5  
 Aug 23 - 25  
 Sep 13 - 15  
 Oct 4 - 6  
 Oct 25 - 27  
 Nov 8 - 10  
 Dec 13 - 15

#### Challenge Test

Jan 21 . . . . . Manchester, NH  
 Feb 5 . . . . . Manchester, NH  
 Feb 19 . . . . . Manchester, NH  
 Mar 26 . . . . . Manchester, NH  
 Apr 16 . . . . . Manchester, NH  
 May 7 . . . . . Manchester, NH  
 May 21 . . . . . Manchester, NH  
 Jun 30 . . . . . Manchester, NH  
 Jul 22 . . . . . Manchester, NH  
 Aug 6 . . . . . Manchester, NH  
 Sep 23 . . . . . Manchester, NH  
 Oct 21 . . . . . Manchester, NH  
 Nov 23 . . . . . Manchester, NH  
 Dec 20 . . . . . Manchester, NH

#### Challenge Test

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

Jan 8                      Jul 1  
 Jan 29                    Jul 23  
 Feb 19                    Aug 13  
 Feb 26                    Aug 19  
 Mar 4                     Sep 3  
 Mar 19                    Sep 24  
 Apr 9                     Oct 15  
 Apr 29                    Nov 5  
 May 21                    Dec 3  
 Jun 11                    Dec 17

### 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.

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

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

Jan 18 - 21	Feb 8 - 11
Mar 1 - 4	Mar 22 - 25
Apr 12 - 15	May 3 - 6
May 24 - 27	Jun 14 - 17
Jul 12 - 15	Aug 3 - 6
Aug 23 - 26	Sep 13 - 16
Oct 4 - 7	Oct 25 - 28
Nov 8 - 11	Dec 13 - 16

#### Challenge Test

Jan 21 . . . . . Manchester, NH
Feb 5 . . . . . Manchester, NH
Feb 19 . . . . . Manchester, NH
Mar 26 . . . . . Manchester, NH
Apr 16 . . . . . Manchester, NH
May 7 . . . . . Manchester, NH
May 21 . . . . . Manchester, NH
Jun 30 . . . . . Manchester, NH
Jul 22 . . . . . Manchester, NH
Aug 6 . . . . . Manchester, NH
Sep 23 . . . . . Manchester, NH
Oct 21 . . . . . Manchester, NH
Nov 23 . . . . . Manchester, NH
Dec 20 . . . . . Manchester, NH

#### Challenge Test

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

Jan 8	Jul 1
Jan 29	Jul 23
Feb 19	Aug 13
Feb 26	Aug 19
Mar 4	Sep 3
Mar 19	Sep 24
Apr 9	Oct 15
Apr 29	Nov 5
May 21	Dec 3
Jun 11	Dec 17

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

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

Jan 4 - 5	Jan 27 - 28
Feb 15 - 16	Mar 8 - 9
Mar 29 - 30	Apr 19 - 20
Apr 19 - 20	May 10 - 11
Jun 7 - 8	Jun 28 - 29
Jul 19 - 20	Aug 9 - 10
Aug 23 - 24	Sep 13 - 14
Oct 4 - 5	Oct 25 - 26
Nov 15 - 16	Dec 6 - 7
Dec 27 - 28	

#### Challenge Test

Jan 21 . . . . . Manchester, NH
Feb 5 . . . . . Manchester, NH
Feb 19 . . . . . Manchester, NH
Mar 26 . . . . . Manchester, NH
Apr 16 . . . . . Manchester, NH
May 7 . . . . . Manchester, NH
May 21 . . . . . Manchester, NH
Jun 30 . . . . . Manchester, NH
Jul 22 . . . . . Manchester, NH
Aug 6 . . . . . Manchester, NH
Sep 23 . . . . . Manchester, NH
Oct 21 . . . . . Manchester, NH
Nov 23 . . . . . Manchester, NH
Dec 20 . . . . . Manchester, NH

#### Challenge Test

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

Jan 8	Jul 1
Jan 29	Jul 23
Feb 19	Aug 13
Feb 26	Aug 19
Mar 4	Sep 3
Mar 19	Sep 24
Apr 9	Oct 15
Apr 29	Nov 5
May 21	Dec 3
Jun 11	Dec 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

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

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

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

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

#### FOR LECTURE AND EXAM ONLY\*

Feb 22 - 25
Apr 19 - 22
Jun 21 - 24
Aug 16 - 19
Oct 18 - 21
Dec 27 - 30

#### Challenge Test

Jan 21 . . . . . Manchester, NH	Jun 30 . . . . . Manchester, NH
Feb 5 . . . . . Manchester, NH	Jul 22 . . . . . Manchester, NH
Feb 19 . . . . . Manchester, NH	Aug 6 . . . . . Manchester, NH
Mar 26 . . . . . Manchester, NH	Sep 23 . . . . . Manchester, NH
Apr 16 . . . . . Manchester, NH	Oct 21 . . . . . Manchester, NH
May 7 . . . . . Manchester, NH	Nov 23 . . . . . Manchester, NH
May 21 . . . . . Manchester, NH	Dec 20 . . . . . Manchester, NH

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

Jan 29 . . . . . Manchester, NH
Jan 29 . . . . . Watertown, CT
Feb 15 . . . . . Toronto, ON
Feb 24 . . . . . San Diego, CA
Mar 29 . . . . . Manchester, NH
Apr 30 . . . . . Rochester, NY
May 14 . . . . . Toronto, ON
May 14 . . . . . Watertown, CT
Jun 28 . . . . . Manchester, NH
Jul 23 . . . . . Manchester, NH
Aug 6 . . . . . Watertown, CT
Sep 27 . . . . . Manchester, NH
Oct 21 . . . . . San Diego, CA
Nov 12 . . . . . Manchester, NH
Nov 12 . . . . . Toronto, ON
Dec 21 . . . . . Manchester, NH

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

Feb 17
Feb 26
Mar 12
Apr 28
Jun 30
Aug 20
Sep 1
Oct 13
Nov 24

#### J-STD-001 CIT Recertification

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

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

#### FOR LECTURE AND EXAM ONLY\*

Feb 15 - 16
Apr 26 - 27
Jun 28 - 29
Aug 30 - 31
Oct 11 - 12
Nov 22 - 23

#### Challenge Test

Jan 21 . . . . . Manchester, NH	Jun 30 . . . . . Manchester, NH
Feb 5 . . . . . Manchester, NH	Jul 22 . . . . . Manchester, NH
Feb 19 . . . . . Manchester, NH	Aug 6 . . . . . Manchester, NH
Mar 26 . . . . . Manchester, NH	Sep 23 . . . . . Manchester, NH
Apr 16 . . . . . Manchester, NH	Oct 21 . . . . . Manchester, NH
May 7 . . . . . Manchester, NH	Nov 23 . . . . . Manchester, NH
May 21 . . . . . Manchester, NH	Dec 20 . . . . . Manchester, NH

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

Jan 29 . . . . . Manchester, NH
Jan 29 . . . . . Watertown, CT
Feb 15 . . . . . Toronto, ON
Feb 24 . . . . . San Diego, CA
Mar 29 . . . . . Manchester, NH
Apr 30 . . . . . Rochester, NY
May 14 . . . . . Toronto, ON
May 14 . . . . . Watertown, CT
Jun 28 . . . . . Manchester, NH
Jul 23 . . . . . Manchester, NH
Aug 6 . . . . . Watertown, CT
Sep 27 . . . . . Manchester, NH
Oct 21 . . . . . San Diego, CA
Nov 12 . . . . . Manchester, NH
Nov 12 . . . . . Toronto, ON
Dec 21 . . . . . Manchester, NH

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

Feb 17
Feb 26
Mar 12
Apr 28
Jun 30
Aug 20
Sep 1
Oct 13
Nov 24

**\*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.

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

#### J-STD-001 CIS Recertification

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

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

Jan 29 . . . . . Manchester, NH	Nov 12 . . . . . Toronto, ON
Jan 29 . . . . . Watertown, CT	Dec 21 . . . . . Manchester, NH
Feb 15 . . . . . Toronto, ON	
Feb 24 . . . . . San Diego, CA	<b>ON-LINE</b> Start time: 10am E.S.T.
Mar 29 . . . . . Manchester, NH	Feb 17
Apr 30 . . . . . Rochester, NY	Feb 26
May 14 . . . . . Toronto, ON	Mar 12
May 14 . . . . . Watertown, CT	Apr 28
Jun 28 . . . . . Manchester, NH	Jun 30
Jul 23 . . . . . Manchester, NH	Aug 20
Aug 6 . . . . . Watertown, CT	Sep 1
Sep 27 . . . . . Manchester, NH	Oct 13
Oct 21 . . . . . San Diego, CA	Nov 24
Nov 12 . . . . . Manchester, NH	

#### Challenge Test

Jan 21 . . . . . Manchester, NH	Jun 30 . . . . . Manchester, NH
Feb 5 . . . . . Manchester, NH	Jul 22 . . . . . Manchester, NH
Feb 19 . . . . . Manchester, NH	Aug 6 . . . . . Manchester, NH
Mar 26 . . . . . Manchester, NH	Sep 23 . . . . . Manchester, NH
Apr 16 . . . . . Manchester, NH	Oct 21 . . . . . Manchester, NH
May 7 . . . . . Manchester, NH	Nov 23 . . . . . Manchester, NH
May 21 . . . . . Manchester, NH	Dec 20 . . . . . Manchester, NH

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

Jan 29 . . . . . Manchester, NH	Nov 12 . . . . . Toronto, ON
Jan 29 . . . . . Watertown, CT	Dec 21 . . . . . Manchester, NH
Feb 15 . . . . . Toronto, ON	
Feb 24 . . . . . San Diego, CA	<b>ON-LINE</b> Start time: 10am E.S.T.
Mar 29 . . . . . Manchester, NH	Feb 17
Apr 30 . . . . . Rochester, NY	Feb 26
May 14 . . . . . Toronto, ON	Mar 12
May 14 . . . . . Watertown, CT	Apr 28
Jun 28 . . . . . Manchester, NH	Jun 30
Jul 23 . . . . . Manchester, NH	Aug 20
Aug 6 . . . . . Watertown, CT	Sep 1
Sep 27 . . . . . Manchester, NH	Oct 13
Oct 21 . . . . . San Diego, CA	Nov 24
Nov 12 . . . . . Manchester, NH	

#### Challenge Test

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

Aug 9 - 13 ... Rochester, NY  
 Aug 16 - 20 ... San Diego, CA  
 Aug 16 - 20 ... Seattle, WA  
 Aug 16 - 20 ... Watertown, CT  
 Aug 23 - 27 ... Toronto, ON  
 Aug 30 - Sep 3 ... Manchester, NH  
 Sep 13 - 17 ... Minneapolis, MN  
 Sep 20 - 24 ... Schaumburg, IL  
 Oct 4 - 8 ... Binghamton, NY  
 Oct 4 - 8 ... Toronto, ON  
 Oct 18 - 22 ... Anaheim, CA  
 Nov 1 - 5 ... Manchester, NH  
 Nov 8 - 12 ... Watertown, CT  
 Nov 15 - 19 ... San Diego, CA  
 Nov 22 - 26 ... Ottawa, ON  
 Nov 29 - Dec 3 ... Seattle, WA  
 Dec 6 - 10 ... Schaumburg, IL  
 Dec 6 - 10 ... Toronto, ON  
 Dec 13 - 17 ... Buffalo, NY  
 Dec 13 - 17 ... Kansas City, MO  
 Dec 13 - 17 ... Long Island, NY  
 Dec 13 - 17 ... Palm Bay, FL

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

Feb 22 - 25  
 Apr 19 - 22  
 Jun 21 - 24  
 Aug 16 - 19  
 Oct 18 - 21  
 Dec 27 - 30

#### Challenge Test

Jan 21 ... Manchester, NH  
 Feb 5 ... Manchester, NH  
 Feb 19 ... Manchester, NH  
 Mar 26 ... Manchester, NH  
 Apr 16 ... Manchester, NH  
 May 7 ... Manchester, NH  
 May 21 ... Manchester, NH  
 Jun 30 ... Manchester, NH  
 Jul 22 ... Manchester, NH  
 Aug 6 ... Manchester, NH  
 Sep 23 ... Manchester, NH  
 Oct 21 ... Manchester, NH  
 Nov 23 ... Manchester, NH  
 Dec 20 ... Manchester, NH

#### Challenge Test

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

Jan 8 Jul 1  
 Jan 29 Jul 23  
 Feb 19 Aug 13  
 Feb 26 Aug 19  
 Mar 4 Sep 3  
 Mar 19 Sep 24  
 Apr 9 Oct 15  
 Apr 29 Nov 5  
 May 21 Dec 3  
 Jun 11 Dec 17

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

Jan 29 ... Manchester, NH  
 Jan 29 ... Watertown, CT  
 Feb 15 ... Toronto, ON  
 Feb 24 ... San Diego, CA  
 Mar 29 ... Manchester, NH  
 Apr 30 ... Rochester, NY  
 May 14 ... Toronto, ON  
 May 14 ... Watertown, CT  
 Jun 28 ... Manchester, NH  
 Jul 23 ... Manchester, NH  
 Aug 6 ... Watertown, CT  
 Sep 27 ... Manchester, NH  
 Oct 21 ... San Diego, CA  
 Nov 12 ... Manchester, NH  
 Nov 12 ... Toronto, ON  
 Dec 21 ... Manchester, NH

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

Feb 17  
 Feb 26  
 Mar 12  
 Apr 28  
 Jun 30  
 Aug 20  
 Sep 1  
 Oct 13  
 Nov 24

#### J-STD-001 CSE Recertification

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

Aug 4 - 5 ... Buffalo, NY  
 Aug 4 - 5 ... Watertown, CT  
 Aug 5 - 6 ... Toronto, ON  
 Aug 12 - 13 ... Minneapolis, MN  
 Aug 18 - 19 ... Long Island, NY  
 Aug 25 - 26 ... Kansas City, MO  
 Aug 25 - 26 ... Schaumburg, IL  
 Sep 7 - 8 ... Manchester, NH  
 Sep 15 - 16 ... Palm Bay, FL  
 Sep 22 - 23 ... Rochester, NY  
 Oct 4 - 5 ... Manchester, NH  
 Oct 6 - 7 ... Seattle, WA  
 Oct 14 - 15 ... Buffalo, NY  
 Oct 19 - 20 ... San Diego, CA  
 Nov 4 - 5 ... Schaumburg, IL  
 Nov 10 - 11 ... Manchester, NH  
 Nov 10 - 11 ... Toronto, ON  
 Nov 17 - 18 ... Minneapolis, MN  
 Nov 17 - 18 ... Watertown, CT

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

Feb 15 - 16  
 Apr 26 - 27  
 Jun 28 - 29  
 Aug 30 - 31  
 Oct 11 - 12  
 Nov 22 - 23

#### Challenge Test

Jan 21 ... Manchester, NH  
 Feb 5 ... Manchester, NH  
 Feb 19 ... Manchester, NH  
 Mar 26 ... Manchester, NH  
 Apr 16 ... Manchester, NH  
 May 7 ... Manchester, NH  
 May 21 ... Manchester, NH  
 Jun 30 ... Manchester, NH  
 Jul 22 ... Manchester, NH  
 Aug 6 ... Manchester, NH  
 Sep 23 ... Manchester, NH  
 Oct 21 ... Manchester, NH  
 Nov 23 ... Manchester, NH  
 Dec 20 ... Manchester, NH

#### Challenge Test

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

Jan 8 Jul 1  
 Jan 29 Jul 23  
 Feb 19 Aug 13  
 Feb 26 Aug 19  
 Mar 4 Sep 3  
 Mar 19 Sep 24  
 Apr 9 Oct 15  
 Apr 29 Nov 5  
 May 21 Dec 3  
 Jun 11 Dec 17

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

Jan 29 ... Manchester, NH  
 Jan 29 ... Watertown, CT  
 Feb 15 ... Toronto, ON  
 Feb 24 ... San Diego, CA  
 Mar 29 ... Manchester, NH  
 Apr 30 ... Rochester, NY  
 May 14 ... Toronto, ON  
 May 14 ... Watertown, CT  
 Jun 28 ... Manchester, NH  
 Jul 23 ... Manchester, NH  
 Aug 6 ... Watertown, CT  
 Sep 27 ... Manchester, NH  
 Oct 21 ... San Diego, CA  
 Nov 12 ... Manchester, NH  
 Nov 12 ... Toronto, ON  
 Dec 21 ... Manchester, NH

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

Feb 17  
 Feb 26  
 Mar 12  
 Apr 28  
 Jun 30  
 Aug 20  
 Sep 1  
 Oct 13  
 Nov 24



### 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 11 - 14 ... Kansas City, MO  
 Jan 11 - 14 ... Manchester, NH  
 Jan 18 - 21 ... Long Island, NY  
 Jan 19 - 22 ... Watertown, CT  
 Feb 8 - 11 ... Pittsburgh, PA  
 Feb 8 - 11 ... San Diego, CA  
 Feb 8 - 11 ... Seattle, WA  
 Feb 15 - 18 ... Schaumburg, IL  
 Feb 16 - 19 ... Toronto, ON  
 Mar 1 - 4 ... Palm Bay, FL  
 Mar 15 - 18 ... Anaheim, CA  
 Mar 15 - 18 ... Buffalo, NY  
 Mar 15 - 18 ... Manchester, NH  
 Mar 22 - 25 ... Rochester, NY  
 Apr 12 - 15 ... San Diego, CA  
 Apr 12 - 15 ... Watertown, CT  
 Apr 19 - 22 ... Minneapolis, MN  
 May 3 - 6 ... Schaumburg, IL  
 May 3 - 6 ... Toronto, ON  
 May 10 - 13 ... Kansas City, MO  
 May 10 - 13 ... Long Island, NY  
 May 10 - 13 ... Manchester, NH  
 May 24 - 27 ... Akron, OH  
 Jun 7 - 10 ... Minneapolis, MN  
 Jun 14 - 17 ... Anaheim, CA  
 Jun 14 - 17 ... Buffalo, NY  
 Jun 21 - 24 ... Palm Bay, FL  
 Jun 21 - 24 ... Rochester, NY  
 Jul 12 - 15 ... Manchester, NH  
 Jul 12 - 15 ... Seattle, WA  
 Jul 19 - 22 ... Watertown, CT  
 Aug 9 - 12 ... Schaumburg, IL  
 Aug 9 - 12 ... Toronto, ON  
 Sep 7 - 10 ... Pittsburgh, PA  
 Sep 13 - 16 ... Akron, OH  
 Sep 13 - 16 ... Anaheim, CA  
 Sep 13 - 16 ... Manchester, NH

Sep 20 - 23 ... Buffalo, NY  
 Sep 20 - 23 ... Minneapolis, MN  
 Sep 20 - 23 ... Palm Bay, FL  
 Sep 20 - 23 ... San Diego, CA  
 Sep 27 - 30 ... Long Island, NY  
 Sep 27 - 30 ... Schaumburg, IL  
 Oct 4 - 7 ... Rochester, NY  
 Oct 11 - 14 ... Kansas City, MO  
 Oct 25 - 28 ... Watertown, CT  
 Nov 15 - 18 ... Schaumburg, IL  
 Nov 15 - 18 ... Seattle, WA  
 Nov 16 - 19 ... Anaheim, CA  
 Nov 29 - Dec 2 Toronto, ON  
 Nov 30 - Dec 3 Minneapolis, MN  
 Dec 6 - 9 ... Palm Bay, FL  
 Dec 13 - 16 ... Manchester, NH  
 Dec 13 - 16 ... San Diego, CA

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

Jan 11 - 14  
 Feb 1 - 4  
 Feb 22 - 25  
 Mar 15 - 18  
 Apr 5 - 8  
 Apr 26 - 29  
 May 17 - 20  
 Jun 7 - 10  
 Jun 28 - Jul 1  
 Jul 19 - 22  
 Aug 9 - 12  
 Aug 30 - Sep 2  
 Sep 20 - 23  
 Oct 11 - 14  
 Nov 1 - 4  
 Nov 15 - 18  
 Dec 6 - 9  
 Dec 27 - 30

#### Challenge Test

Jan 21 ... Manchester, NH  
 Feb 5 ... Manchester, NH  
 Feb 19 ... Manchester, NH  
 Mar 26 ... Manchester, NH  
 Apr 16 ... Manchester, NH  
 May 7 ... Manchester, NH  
 May 21 ... Manchester, NH  
 Jun 30 ... Manchester, NH  
 Jul 22 ... Manchester, NH  
 Aug 6 ... Manchester, NH  
 Sep 23 ... Manchester, NH  
 Oct 21 ... Manchester, NH  
 Nov 23 ... Manchester, NH  
 Dec 20 ... Manchester, NH

#### Challenge Test

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

Jan 8 Jul 1  
 Jan 29 Jul 23  
 Feb 19 Aug 13  
 Feb 26 Aug 19  
 Mar 4 Sep 3  
 Mar 19 Sep 24  
 Apr 9 Oct 15  
 Apr 29 Nov 5  
 May 21 Dec 3  
 Jun 11 Dec 17

#### IPC-A-620 CIT Recertification

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

Oct 11 - 12 ... Rochester, NY  
 Oct 11 - 12 ... Watertown, CT  
 Oct 27 - 28 ... Palm Bay, FL  
 Oct 28 - 29 ... Minneapolis, MN  
 Nov 22 - 23 ... Buffalo, NY  
 Nov 22 - 23 ... Long Island, NY  
 Nov 22 - 23 ... Manchester, NH  
 Dec 20 - 21 ... Toronto, ON

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

Jan 6 - 7  
 Jan 25 - 26  
 Feb 17 - 18  
 Mar 10 - 11  
 Mar 31 - Apr 1  
 Apr 21 - 22  
 May 12 - 13  
 Jun 9 - 10  
 Jun 30 - Jul 1  
 Jul 21 - 22  
 Aug 11 - 12  
 Aug 25 - 26  
 Sep 15 - 16  
 Oct 6 - 7  
 Oct 27 - 28  
 Nov 17 - 18  
 Dec 8 - 9  
 Dec 29 - 30

#### Challenge Test

Jan 21 ... Manchester, NH  
 Feb 5 ... Manchester, NH  
 Feb 19 ... Manchester, NH  
 Mar 26 ... Manchester, NH  
 Apr 16 ... Manchester, NH  
 May 7 ... Manchester, NH  
 May 21 ... Manchester, NH  
 Jun 30 ... Manchester, NH  
 Jul 22 ... Manchester, NH  
 Aug 6 ... Manchester, NH  
 Sep 23 ... Manchester, NH  
 Oct 21 ... Manchester, NH  
 Nov 23 ... Manchester, NH  
 Dec 20 ... Manchester, NH

#### Challenge Test

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

Jan 8 Jul 1  
 Jan 29 Jul 23  
 Feb 19 Aug 13  
 Feb 26 Aug 19  
 Mar 4 Sep 3  
 Mar 19 Sep 24  
 Apr 9 Oct 15  
 Apr 29 Nov 5  
 May 21 Dec 3  
 Jun 11 Dec 17

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

#### IPC-A-620 CIS Recertification

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

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

Jan 11 - 14	Feb 1 - 4
Feb 22 - 25	Mar 15 - 18
Apr 5 - 8	Apr 26 - 29
May 17 - 20	Jun 7 - 10
Jun 28 - Jul 1	Jul 19 - 22
Aug 9 - 12	Aug 30 - Sep 2
Sep 20 - 23	Oct 11 - 14
Nov 1 - 4	Nov 15 - 18
Dec 6 - 9	Dec 27 - 30

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

Jan 11 - 14	Feb 1 - 4
Feb 22 - 25	Mar 15 - 18
Apr 5 - 8	Apr 26 - 29
May 17 - 20	Jun 7 - 10
Jun 28 - Jul 1	Jul 19 - 22
Aug 9 - 12	Aug 30 - Sep 2
Sep 20 - 23	Oct 11 - 14
Nov 1 - 4	Nov 15 - 18
Dec 6 - 9	Dec 27 - 30

#### Challenge Test

Jan 21 . . . . . Manchester, NH
Feb 5 . . . . . Manchester, NH
Feb 19 . . . . . Manchester, NH
Mar 26 . . . . . Manchester, NH
Apr 16 . . . . . Manchester, NH
May 7 . . . . . Manchester, NH
May 21 . . . . . Manchester, NH
Jun 30 . . . . . Manchester, NH
Jul 22 . . . . . Manchester, NH
Aug 6 . . . . . Manchester, NH
Sep 23 . . . . . Manchester, NH
Oct 21 . . . . . Manchester, NH
Nov 23 . . . . . Manchester, NH
Dec 20 . . . . . Manchester, NH

#### Challenge Test

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

Jan 8	Jul 1
Jan 29	Jul 23
Feb 19	Aug 13
Feb 26	Aug 19
Mar 4	Sep 3
Mar 19	Sep 24
Apr 9	Oct 15
Apr 29	Nov 5
May 21	Dec 3
Jun 11	Dec 17

#### Challenge Test

Jan 21 . . . . . Manchester, NH
Feb 5 . . . . . Manchester, NH
Feb 19 . . . . . Manchester, NH
Mar 26 . . . . . Manchester, NH
Apr 16 . . . . . Manchester, NH
May 7 . . . . . Manchester, NH
May 21 . . . . . Manchester, NH
Jun 30 . . . . . Manchester, NH
Jul 22 . . . . . Manchester, NH
Aug 6 . . . . . Manchester, NH
Sep 23 . . . . . Manchester, NH
Oct 21 . . . . . Manchester, NH
Nov 23 . . . . . Manchester, NH
Dec 20 . . . . . Manchester, NH

#### Challenge Test

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

Jan 8	Jul 1
Jan 29	Jul 23
Feb 19	Aug 13
Feb 26	Aug 19
Mar 4	Sep 3
Mar 19	Sep 24
Apr 9	Oct 15
Apr 29	Nov 5
May 21	Dec 3
Jun 11	Dec 17

#### 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 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 11 - 14 ... Kansas City, MO  
 Jan 11 - 14 ... Manchester, NH  
 Jan 18 - 21 ... Long Island, NY  
 Jan 19 - 22 ... Watertown, CT  
 Feb 8 - 11 ... Pittsburgh, PA  
 Feb 8 - 11 ... San Diego, CA  
 Feb 8 - 11 ... Seattle, WA  
 Feb 15 - 18 ... Schaumburg, IL  
 Feb 16 - 19 ... Toronto, ON  
 Mar 1 - 4 ... Palm Bay, FL  
 Mar 15 - 18 ... Anaheim, CA  
 Mar 15 - 18 ... Buffalo, NY  
 Mar 15 - 18 ... Manchester, NH  
 Mar 22 - 25 ... Rochester, NY  
 Apr 12 - 15 ... San Diego, CA  
 Apr 12 - 15 ... Watertown, CT  
 Apr 19 - 22 ... Minneapolis, MN  
 May 3 - 6 ... Schaumburg, IL  
 May 3 - 6 ... Toronto, ON  
 May 10 - 13 ... Kansas City, MO  
 May 10 - 13 ... Long Island, NY  
 May 10 - 13 ... Manchester, NH  
 May 24 - 27 ... Akron, OH  
 Jun 7 - 10 ... Minneapolis, MN  
 Jun 14 - 17 ... Anaheim, CA  
 Jun 14 - 17 ... Buffalo, NY  
 Jun 21 - 24 ... Palm Bay, FL  
 Jun 21 - 24 ... Rochester, NY  
 Jul 12 - 15 ... Manchester, NH  
 Jul 12 - 15 ... Seattle, WA  
 Jul 19 - 22 ... Watertown, CT  
 Aug 9 - 12 ... Schaumburg, IL  
 Aug 9 - 12 ... Toronto, ON  
 Sep 7 - 10 ... Pittsburgh, PA  
 Sep 13 - 16 ... Akron, OH  
 Sep 13 - 16 ... Anaheim, CA  
 Sep 13 - 16 ... Manchester, NH

Sep 20 - 23 ... Buffalo, NY  
 Sep 20 - 23 ... Minneapolis, MN  
 Sep 20 - 23 ... Palm Bay, FL  
 Sep 20 - 23 ... San Diego, CA  
 Sep 27 - 30 ... Long Island, NY  
 Sep 27 - 30 ... Schaumburg, IL  
 Oct 4 - 7 ... Rochester, NY  
 Oct 11 - 14 ... Kansas City, MO  
 Oct 25 - 28 ... Watertown, CT  
 Nov 15 - 18 ... Schaumburg, IL  
 Nov 15 - 18 ... Seattle, WA  
 Nov 16 - 19 ... Anaheim, CA  
 Nov 29 - Dec 2 Toronto, ON  
 Nov 30 - Dec 3 Minneapolis, MN  
 Dec 6 - 9 ... Palm Bay, FL  
 Dec 13 - 16 ... Manchester, NH  
 Dec 13 - 16 ... San Diego, CA

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

Jan 11 - 14  
 Feb 1 - 4  
 Feb 22 - 25  
 Mar 15 - 18  
 Apr 5 - 8  
 Apr 26 - 29  
 May 17 - 20  
 Jun 7 - 10  
 Jun 28 - Jul 1  
 Jul 19 - 22  
 Aug 9 - 12  
 Aug 30 - Sep 2  
 Sep 20 - 23  
 Oct 11 - 14  
 Nov 1 - 4  
 Nov 15 - 18  
 Dec 6 - 9  
 Dec 27 - 30

#### Challenge Test

Jan 21 ... Manchester, NH  
 Feb 5 ... Manchester, NH  
 Feb 19 ... Manchester, NH  
 Mar 26 ... Manchester, NH  
 Apr 16 ... Manchester, NH  
 May 7 ... Manchester, NH  
 May 21 ... Manchester, NH  
 Jun 30 ... Manchester, NH  
 Jul 22 ... Manchester, NH  
 Aug 6 ... Manchester, NH  
 Sep 23 ... Manchester, NH  
 Oct 21 ... Manchester, NH  
 Nov 23 ... Manchester, NH  
 Dec 20 ... Manchester, NH

#### Challenge Test

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

Jan 8 Jul 1  
 Jan 29 Jul 23  
 Feb 19 Aug 13  
 Feb 26 Aug 19  
 Mar 4 Sep 3  
 Mar 19 Sep 24  
 Apr 9 Oct 15  
 Apr 29 Nov 5  
 May 21 Dec 3  
 Jun 11 Dec 17

#### IPC-A-620 CSE Recertification

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

Oct 11 - 12 ... Watertown, CT  
 Oct 27 - 28 ... Palm Bay, FL  
 Oct 28 - 29 ... Minneapolis, MN  
 Nov 22 - 23 ... Buffalo, NY  
 Nov 22 - 23 ... Long Island, NY  
 Nov 22 - 23 ... Manchester, NH  
 Dec 20 - 21 ... Toronto, ON

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

Jan 6 - 7  
 Jan 25 - 26  
 Feb 17 - 18  
 Mar 10 - 11  
 Mar 31 - Apr 1  
 Apr 21 - 22  
 May 12 - 13  
 Jun 9 - 10  
 Jun 30 - Jul 1  
 Jul 21 - 22  
 Aug 11 - 12  
 Aug 25 - 26  
 Sep 15 - 16  
 Oct 6 - 7  
 Oct 27 - 28  
 Nov 17 - 18  
 Dec 8 - 9  
 Dec 29 - 30

#### Challenge Test

Jan 21 ... Manchester, NH  
 Feb 5 ... Manchester, NH  
 Feb 19 ... Manchester, NH  
 Mar 26 ... Manchester, NH  
 Apr 16 ... Manchester, NH  
 May 7 ... Manchester, NH  
 May 21 ... Manchester, NH  
 Jun 30 ... Manchester, NH  
 Jul 22 ... Manchester, NH  
 Aug 6 ... Manchester, NH  
 Sep 23 ... Manchester, NH  
 Oct 21 ... Manchester, NH  
 Nov 23 ... Manchester, NH  
 Dec 20 ... Manchester, NH

#### Challenge Test

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

Jan 8 Jul 1  
 Jan 29 Jul 23  
 Feb 19 Aug 13  
 Feb 26 Aug 19  
 Mar 4 Sep 3  
 Mar 19 Sep 24  
 Apr 9 Oct 15  
 Apr 29 Nov 5  
 May 21 Dec 3  
 Jun 11 Dec 17

### 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 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 15 . . . . . Kansas City, MO	Jun 25 . . . . . Ottawa, ON
Jan 15 . . . . . Manchester, NH	Jun 25 . . . . . Rochester, NY
Jan 15 . . . . . Ottawa, ON	Jul 16 . . . . . Manchester, NH
Feb 12 . . . . . Atlanta, GA	Jul 23 . . . . . Watertown, CT
Feb 12 . . . . . Pittsburgh, PA	Aug 6 . . . . . Atlanta, GA
Feb 12 . . . . . San Diego, CA	Aug 13 . . . . . Schaumburg, IL
Feb 12 . . . . . Seattle, WA	Aug 13 . . . . . Toronto, ON
Feb 19 . . . . . Schaumburg, IL	Aug 27 . . . . . Manchester, NH
Mar 5 . . . . . Manchester, NH	Aug 27 . . . . . Santa Clara, CA
Mar 5 . . . . . Syracuse, NY	Sep 17 . . . . . Akron, OH
Mar 19 . . . . . Anaheim, CA	Sep 17 . . . . . Anaheim, CA
Mar 19 . . . . . Buffalo, NY	Sep 17 . . . . . Manchester, NH
Mar 19 . . . . . Manchester, NH	Sep 24 . . . . . Buffalo, NY
Mar 26 . . . . . Rochester, NY	Oct 1 . . . . . Long Island, NY
Apr 16 . . . . . San Diego, CA	Oct 1 . . . . . Schaumburg, IL
Apr 16 . . . . . Watertown, CT	Oct 8 . . . . . Rochester, NY
Apr 23 . . . . . Minneapolis, MN	Oct 15 . . . . . Kansas City, MO
Apr 30 . . . . . Binghamton, NY	Oct 29 . . . . . Syracuse, NY
Apr 30 . . . . . Manchester, NH	Oct 29 . . . . . Watertown, CT
May 7 . . . . . Atlanta, GA	Nov 5 . . . . . Manchester, NH
May 7 . . . . . Toronto, ON	Nov 5 . . . . . Ottawa, ON
May 14 . . . . . Akron, OH	Nov 19 . . . . . Atlanta, GA
May 14 . . . . . Long Island, NY	Nov 19 . . . . . Schaumburg, IL
May 14 . . . . . Manchester, NH	Nov 19 . . . . . Seattle, WA
Jun 11 . . . . . Minneapolis, MN	Dec 3 . . . . . Santa Clara, CA
Jun 11 . . . . . Syracuse, NY	Dec 3 . . . . . Toronto, ON
Jun 18 . . . . . Anaheim, CA	Dec 17 . . . . . Manchester, NH
Jun 18 . . . . . Buffalo, NY	Dec 17 . . . . . San Diego, CA
Jun 18 . . . . . Manchester, NH	

#### ALSO AVAILABLE

#### Crimp Terminations Certification

- Apr 2 . . . . . Manchester, NH
- Aug 13 . . . . . Manchester, NH
- Dec 20 . . . . . Manchester, NH

#### Crimp Terminations Recertification

- Apr 2 . . . . . Manchester, NH
- Aug 13 . . . . . Manchester, NH
- Dec 20 . . . . . 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

## 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 10 - 12 . . . Toronto, ON  
 Mar 3 - 5 . . . . . Minneapolis, MN  
 Mar 22 - 24 . . . Schaumburg, IL  
 Apr 6 - 8 . . . . . Manchester, NH  
 May 19 - 21 . . . Toronto, ON  
 Jun 1 - 3 . . . . . Minneapolis, MN  
 Jul 14 - 16 . . . . Schaumburg, IL  
 Aug 3 - 5 . . . . . Manchester, NH  
 Aug 30 - Sep 1 Toronto, ON  
 Oct 13 - 15 . . . Toronto, ON  
 Oct 25 - 27 . . . Minneapolis, MN  
 Nov 30 - Dec 2 Manchester, NH

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

Jan 4 - 6  
 Mar 1 - 3  
 May 11 - 13  
 Jul 12 - 14  
 Sep 7 - 9  
 Nov 1 - 3

#### Challenge Test

Jan 21 . . . . . Manchester, NH  
 Feb 5 . . . . . Manchester, NH  
 Feb 19 . . . . . Manchester, NH  
 Mar 26 . . . . . Manchester, NH  
 Apr 16 . . . . . Manchester, NH  
 May 7 . . . . . Manchester, NH  
 May 21 . . . . . Manchester, NH  
 Jun 30 . . . . . Manchester, NH  
 Jul 22 . . . . . Manchester, NH  
 Aug 6 . . . . . Manchester, NH  
 Sep 23 . . . . . Manchester, NH  
 Oct 21 . . . . . Manchester, NH  
 Nov 23 . . . . . Manchester, NH  
 Dec 20 . . . . . Manchester, NH

#### Challenge Test

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

Jan 8	Jul 1
Jan 29	Jul 23
Feb 19	Aug 13
Feb 26	Aug 19
Mar 4	Sep 3
Mar 19	Sep 24
Apr 9	Oct 15
Apr 29	Nov 5
May 21	Dec 3
Jun 11	Dec 17

#### IPC-A-600 CIT Recertification

Feb 10 - 12 . . . Toronto, ON  
 Mar 3 - 5 . . . . . Minneapolis, MN  
 Mar 22 - 24 . . . Schaumburg, IL  
 Apr 6 - 8 . . . . . Manchester, NH  
 May 19 - 21 . . . Toronto, ON  
 Jun 1 - 3 . . . . . Minneapolis, MN  
 Jul 14 - 16 . . . . Schaumburg, IL  
 Aug 3 - 5 . . . . . Manchester, NH  
 Aug 30 - Sep 1 Toronto, ON  
 Oct 13 - 15 . . . Toronto, ON  
 Oct 25 - 27 . . . Minneapolis, MN  
 Nov 30 - Dec 2 Manchester, NH

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

Jan 4 - 6  
 Mar 1 - 3  
 May 11 - 13  
 Jul 12 - 14  
 Sep 7 - 9  
 Nov 1 - 3

#### Challenge Test

Jan 21 . . . . . Manchester, NH  
 Feb 5 . . . . . Manchester, NH  
 Feb 19 . . . . . Manchester, NH  
 Mar 26 . . . . . Manchester, NH  
 Apr 16 . . . . . Manchester, NH  
 May 7 . . . . . Manchester, NH  
 May 21 . . . . . Manchester, NH  
 Jun 30 . . . . . Manchester, NH  
 Jul 22 . . . . . Manchester, NH  
 Aug 6 . . . . . Manchester, NH  
 Sep 23 . . . . . Manchester, NH  
 Oct 21 . . . . . Manchester, NH  
 Nov 23 . . . . . Manchester, NH  
 Dec 20 . . . . . Manchester, NH

#### Challenge Test

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

Jan 8	Jul 1
Jan 29	Jul 23
Feb 19	Aug 13
Feb 26	Aug 19
Mar 4	Sep 3
Mar 19	Sep 24
Apr 9	Oct 15
Apr 29	Nov 5
May 21	Dec 3
Jun 11	Dec 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

### 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-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 10 - 12 . . . Toronto, ON  
 Mar 8 - 10 . . . Palm Bay, FL  
 Mar 17 - 19 . . . San Diego, CA  
 Mar 22 - 24 . . . Schaumburg, IL  
 Apr 6 - 8 . . . Manchester, NH  
 Apr 13 - 15 . . . Seattle, WA  
 May 5 - 7 . . . Santa Clara, CA  
 May 19 - 21 . . . Toronto, ON  
 Jul 14 - 16 . . . Schaumburg, IL  
 Aug 3 - 5 . . . Manchester, NH  
 Aug 30 - Sep 1 Toronto, ON  
 Sep 8 - 10 . . . Seattle, WA  
 Sep 29 - Oct 1. San Diego, CA  
 Oct 13 - 15 . . . Toronto, ON  
 Oct 20 - 22 . . . Palm Bay, FL  
 Nov 30 - Dec 2 Manchester, NH

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

Jan 4 - 6  
 Mar 1 - 3  
 May 11 - 13  
 Jul 12 - 14  
 Sep 7 - 9  
 Nov 1 - 3

#### Challenge Test

Jan 21 . . . . . Manchester, NH  
 Feb 5 . . . . . Manchester, NH  
 Feb 19 . . . . . Manchester, NH  
 Mar 26 . . . . . Manchester, NH  
 Apr 16 . . . . . Manchester, NH  
 May 7 . . . . . Manchester, NH  
 May 21 . . . . . Manchester, NH  
 Jun 30 . . . . . Manchester, NH  
 Jul 22 . . . . . Manchester, NH  
 Aug 6 . . . . . Manchester, NH  
 Sep 23 . . . . . Manchester, NH  
 Oct 21 . . . . . Manchester, NH  
 Nov 23 . . . . . Manchester, NH  
 Dec 20 . . . . . Manchester, NH

#### Challenge Test

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

Jan 8                      Jul 1  
 Jan 29                    Jul 23  
 Feb 19                    Aug 13  
 Feb 26                    Aug 19  
 Mar 4                     Sep 3  
 Mar 19                    Sep 24  
 Apr 9                     Oct 15  
 Apr 29                    Nov 5  
 May 21                    Dec 3  
 Jun 11                    Dec 17

#### IPC-A-600 CIS Recertification

Feb 10 - 12 . . . Toronto, ON  
 Mar 8 - 10 . . . Palm Bay, FL  
 Mar 17 - 19 . . . San Diego, CA  
 Mar 22 - 24 . . . Schaumburg, IL  
 Apr 6 - 8 . . . Manchester, NH  
 Apr 13 - 15 . . . Seattle, WA  
 May 5 - 7 . . . Santa Clara, CA  
 May 19 - 21 . . . Toronto, ON  
 Jul 14 - 16 . . . Schaumburg, IL  
 Aug 3 - 5 . . . Manchester, NH  
 Aug 30 - Sep 1 Toronto, ON  
 Sep 8 - 10 . . . Seattle, WA  
 Sep 29 - Oct 1. San Diego, CA  
 Oct 13 - 15 . . . Toronto, ON  
 Oct 20 - 22 . . . Palm Bay, FL  
 Nov 30 - Dec 2 Manchester, NH

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

Jan 4 - 6  
 Mar 1 - 3  
 May 11 - 13  
 Jul 12 - 14  
 Sep 7 - 9  
 Nov 1 - 3

#### Challenge Test

Jan 21 . . . . . Manchester, NH  
 Feb 5 . . . . . Manchester, NH  
 Feb 19 . . . . . Manchester, NH  
 Mar 26 . . . . . Manchester, NH  
 Apr 16 . . . . . Manchester, NH  
 May 7 . . . . . Manchester, NH  
 May 21 . . . . . Manchester, NH  
 Jun 30 . . . . . Manchester, NH  
 Jul 22 . . . . . Manchester, NH  
 Aug 6 . . . . . Manchester, NH  
 Sep 23 . . . . . Manchester, NH  
 Oct 21 . . . . . Manchester, NH  
 Nov 23 . . . . . Manchester, NH  
 Dec 20 . . . . . Manchester, NH

#### Challenge Test

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

Jan 8                      Jul 1  
 Jan 29                    Jul 23  
 Feb 19                    Aug 13  
 Feb 26                    Aug 19  
 Mar 4                     Sep 3  
 Mar 19                    Sep 24  
 Apr 9                     Oct 15  
 Apr 29                    Nov 5  
 May 21                    Dec 3  
 Jun 11                    Dec 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

### 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-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 10 - 12 . . . Toronto, ON  
 Mar 3 - 5 . . . . . Minneapolis, MN  
 Mar 22 - 24 . . . Schaumburg, IL  
 Apr 6 - 8 . . . . . Manchester, NH  
 May 19 - 21 . . . Toronto, ON  
 Jun 1 - 3 . . . . . Minneapolis, MN  
 Jul 14 - 16 . . . . Schaumburg, IL  
 Aug 3 - 5 . . . . . Manchester, NH  
 Aug 30 - Sep 1 Toronto, ON  
 Oct 13 - 15 . . . Toronto, ON  
 Oct 25 - 27 . . . Minneapolis, MN  
 Nov 30 - Dec 2 Manchester, NH

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

Jan 4 - 6  
 Mar 1 - 3  
 May 11 - 13  
 Jul 12 - 14  
 Sep 7 - 9  
 Nov 1 - 3

#### Challenge Test

Jan 21 . . . . . Manchester, NH  
 Feb 5 . . . . . Manchester, NH  
 Feb 19 . . . . . Manchester, NH  
 Mar 26 . . . . . Manchester, NH  
 Apr 16 . . . . . Manchester, NH  
 May 7 . . . . . Manchester, NH  
 May 21 . . . . . Manchester, NH  
 Jun 30 . . . . . Manchester, NH  
 Jul 22 . . . . . Manchester, NH  
 Aug 6 . . . . . Manchester, NH  
 Sep 23 . . . . . Manchester, NH  
 Oct 21 . . . . . Manchester, NH  
 Nov 23 . . . . . Manchester, NH  
 Dec 20 . . . . . Manchester, NH

#### Challenge Test

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

Jan 8	Jul 1
Jan 29	Jul 23
Feb 19	Aug 13
Feb 26	Aug 19
Mar 4	Sep 3
Mar 19	Sep 24
Apr 9	Oct 15
Apr 29	Nov 5
May 21	Dec 3
Jun 11	Dec 17

#### IPC-A-600 CSE Recertification

Feb 10 - 12 . . . Toronto, ON  
 Mar 3 - 5 . . . . . Minneapolis, MN  
 Mar 22 - 24 . . . Schaumburg, IL  
 Apr 6 - 8 . . . . . Manchester, NH  
 May 19 - 21 . . . Toronto, ON  
 Jun 1 - 3 . . . . . Minneapolis, MN  
 Jul 14 - 16 . . . . Schaumburg, IL  
 Aug 3 - 5 . . . . . Manchester, NH  
 Aug 30 - Sep 1 Toronto, ON  
 Oct 13 - 15 . . . Toronto, ON  
 Oct 25 - 27 . . . Minneapolis, MN  
 Nov 30 - Dec 2 Manchester, NH

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

Jan 4 - 6  
 Mar 1 - 3  
 May 11 - 13  
 Jul 12 - 14  
 Sep 7 - 9  
 Nov 1 - 3

#### Challenge Test

Jan 21 . . . . . Manchester, NH  
 Feb 5 . . . . . Manchester, NH  
 Feb 19 . . . . . Manchester, NH  
 Mar 26 . . . . . Manchester, NH  
 Apr 16 . . . . . Manchester, NH  
 May 7 . . . . . Manchester, NH  
 May 21 . . . . . Manchester, NH  
 Jun 30 . . . . . Manchester, NH  
 Jul 22 . . . . . Manchester, NH  
 Aug 6 . . . . . Manchester, NH  
 Sep 23 . . . . . Manchester, NH  
 Oct 21 . . . . . Manchester, NH  
 Nov 23 . . . . . Manchester, NH  
 Dec 20 . . . . . Manchester, NH

#### Challenge Test

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

Jan 8	Jul 1
Jan 29	Jul 23
Feb 19	Aug 13
Feb 26	Aug 19
Mar 4	Sep 3
Mar 19	Sep 24
Apr 9	Oct 15
Apr 29	Nov 5
May 21	Dec 3
Jun 11	Dec 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-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 11 - 14 . . . Palm Bay, FL	Oct 18 - 22 . . . Toronto, ON
Jan 18 - 22 . . . Seattle, WA	Oct 25 - 29 . . . Manchester, NH
Jan 25 - 29 . . . Manchester, NH	Oct 25 - 29 . . . Schaumburg, IL
Jan 25 - 29 . . . Minneapolis, MN	Nov 15 - 18 . . . Palm Bay, FL
Mar 8 - 12 . . . Schaumburg, IL	Nov 29 - Dec 3 Manchester, NH
Mar 15 - 19 . . . Toronto, ON	Dec 6 - 10 . . . Minneapolis, MN
Mar 15 - 19 . . . Watertown, CT	Dec 13 - 17 . . . Seattle, WA
Apr 19 - 23 . . . Manchester, NH	Dec 13 - 17 . . . Toronto, ON
May 3 - 7 . . . Minneapolis, MN	
Jun 7 - 11 . . . Schaumburg, IL	
Jun 7 - 11 . . . Seattle, WA	
Jun 7 - 11 . . . Toronto, ON	
Jun 7 - 11 . . . Watertown, CT	
Jun 14 - 17 . . . Palm Bay, FL	
Jul 19 - 23 . . . Manchester, NH	
Aug 23 - 27 . . . Manchester, NH	

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

#### FOR LECTURE AND EXAM ONLY\*

Jan 18 - 20
Apr 12 - 14
Jul 7 - 9
Oct 18 - 20
Dec 20 - 22

#### IPC-7711/7721 CIT Recertification

Jan 25 - 26 . . . Seattle, WA	Jul 14 - 15 . . . Minneapolis, MN
Feb 1 - 2 . . . Palm Bay, FL	Aug 18 - 19 . . . Manchester, NH
Feb 3 - 4 . . . Manchester, NH	Sep 2 - 3 . . . Toronto, ON
Feb 8 - 9 . . . Toronto, ON	Sep 15 - 16 . . . Schaumburg, IL
Feb 25 - 26 . . . Schaumburg, IL	Sep 28 - 29 . . . Manchester, NH
Mar 18 - 19 . . . Minneapolis, MN	Oct 25 - 26 . . . Palm Bay, FL
Mar 29 - 30 . . . Manchester, NH	Nov 8 - 9 . . . Manchester, NH
May 17 - 18 . . . Toronto, ON	Nov 15 - 16 . . . Toronto, ON
May 24 - 25 . . . Manchester, NH	Dec 13 - 14 . . . Schaumburg, IL
Jun 28 - 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.

**\*Important Note: IPC-7711/7721 ON-LINE CLASS DATES ARE FOR THE LECTURE AND EXAM ONLY.**  
Attendees will need to travel to a confirmed, in-person IPC-7711/7721 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 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 11 - 14 . . . Palm Bay, FL	Jul 19 - 23 . . . Manchester, NH
Jan 18 - 22 . . . Seattle, WA	Jul 26 - 30 . . . Watertown, CT
Jan 25 - 29 . . . Manchester, NH	Aug 23 - 27 . . . Manchester, NH
Mar 8 - 12 . . . Schaumburg, IL	Oct 18 - 22 . . . Toronto, ON
Mar 15 - 19 . . . Toronto, ON	Oct 25 - 29 . . . Manchester, NH
Mar 15 - 19 . . . Watertown, CT	Oct 25 - 29 . . . Schaumburg, IL
Apr 19 - 23 . . . Manchester, NH	Nov 15 - 18 . . . Palm Bay, FL
Jun 7 - 11 . . . Schaumburg, IL	Nov 29 - Dec 3 . Manchester, NH
Jun 7 - 11 . . . Seattle, WA	Dec 13 - 17 . . . Seattle, WA
Jun 7 - 11 . . . Toronto, ON	Dec 13 - 17 . . . Toronto, ON
Jun 14 - 17 . . . Palm Bay, FL	

#### IPC-7711/7721 CIS Recertification

Jan 25 - 26 . . . Seattle, WA	Aug 18 - 19 . . . Manchester, NH
Feb 1 - 2 . . . . . Palm Bay, FL	Sep 2 - 3 . . . . . Toronto, ON
Feb 3 - 4 . . . . . Manchester, NH	Sep 15 - 16 . . . Schaumburg, IL
Feb 8 - 9 . . . . . Toronto, ON	Sep 28 - 29 . . . Manchester, NH
Feb 25 - 26 . . . Schaumburg, IL	Oct 25 - 26 . . . Palm Bay, FL
Mar 29 - 30 . . . Manchester, NH	Nov 8 - 9 . . . . . Manchester, NH
May 17 - 18 . . . Toronto, ON	Nov 15 - 16 . . . Toronto, ON
May 24 - 25 . . . Manchester, NH	Dec 13 - 14 . . . Schaumburg, IL
Jun 28 - 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-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 11 - 14 ... Palm Bay, FL	Oct 18 - 22 ... Toronto, ON
Jan 18 - 22 ... Seattle, WA	Oct 25 - 29 ... Manchester, NH
Jan 25 - 29 ... Manchester, NH	Oct 25 - 29 ... Schaumburg, IL
Jan 25 - 29 ... Minneapolis, MN	Nov 15 - 18 ... Palm Bay, FL
Mar 8 - 12 ... Schaumburg, IL	Nov 29 - Dec 3 Manchester, NH
Mar 15 - 19 ... Toronto, ON	Dec 6 - 10 ... Minneapolis, MN
Mar 15 - 19 ... Watertown, CT	Dec 13 - 17 ... Seattle, WA
Apr 19 - 23 ... Manchester, NH	Dec 13 - 17 ... Toronto, ON
May 3 - 7 ... Minneapolis, MN	
Jun 7 - 11 ... Schaumburg, IL	
Jun 7 - 11 ... Seattle, WA	
Jun 7 - 11 ... Toronto, ON	
Jun 7 - 11 ... Watertown, CT	
Jun 14 - 17 ... Palm Bay, FL	
Jul 19 - 23 ... Manchester, NH	
Aug 23 - 27 ... Manchester, NH	

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

Jan 18 - 20
Apr 12 - 14
Jul 7 - 9
Oct 18 - 20
Dec 20 - 22

#### Challenge Test

Jan 21 ... Manchester, NH
Feb 5 ... Manchester, NH
Feb 19 ... Manchester, NH
Mar 26 ... Manchester, NH
Apr 16 ... Manchester, NH
May 7 ... Manchester, NH
May 21 ... Manchester, NH
Jun 30 ... Manchester, NH
Jul 22 ... Manchester, NH
Aug 6 ... Manchester, NH
Sep 23 ... Manchester, NH
Oct 21 ... Manchester, NH
Nov 23 ... Manchester, NH
Dec 20 ... Manchester, NH

#### Challenge Test

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

Jan 8	Jul 1
Jan 29	Jul 23
Feb 19	Aug 13
Feb 26	Aug 19
Mar 4	Sep 3
Mar 19	Sep 24
Apr 9	Oct 15
Apr 29	Nov 5
May 21	Dec 3
Jun 11	Dec 17

#### IPC-7711/7721 CIT Recertification

Jan 25 - 26 ... Seattle, WA	Jul 14 - 15 ... Minneapolis, MN
Feb 1 - 2 ... Palm Bay, FL	Aug 18 - 19 ... Manchester, NH
Feb 3 - 4 ... Manchester, NH	Sep 2 - 3 ... Toronto, ON
Feb 8 - 9 ... Toronto, ON	Sep 15 - 16 ... Schaumburg, IL
Feb 25 - 26 ... Schaumburg, IL	Sep 28 - 29 ... Manchester, NH
Mar 18 - 19 ... Minneapolis, MN	Oct 25 - 26 ... Palm Bay, FL
Mar 29 - 30 ... Manchester, NH	Nov 8 - 9 ... Manchester, NH
May 17 - 18 ... Toronto, ON	Nov 15 - 16 ... Toronto, ON
May 24 - 25 ... Manchester, NH	Dec 13 - 14 ... Schaumburg, IL
Jun 28 - 29 ... Manchester, NH	

#### Challenge Test

Jan 21 ... Manchester, NH
Feb 5 ... Manchester, NH
Feb 19 ... Manchester, NH
Mar 26 ... Manchester, NH
Apr 16 ... Manchester, NH
May 7 ... Manchester, NH
May 21 ... Manchester, NH
Jun 30 ... Manchester, NH
Jul 22 ... Manchester, NH
Aug 6 ... Manchester, NH
Sep 23 ... Manchester, NH
Oct 21 ... Manchester, NH
Nov 23 ... Manchester, NH
Dec 20 ... Manchester, NH

#### Challenge Test

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

Jan 8	Jul 1
Jan 29	Jul 23
Feb 19	Aug 13
Feb 26	Aug 19
Mar 4	Sep 3
Mar 19	Sep 24
Apr 9	Oct 15
Apr 29	Nov 5
May 21	Dec 3
Jun 11	Dec 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-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 8 - Feb 11  
Jun 14 - Jun 17  
Nov 29 - Dec 2

#### Challenge Test

Jan 21 . . . . . Manchester, NH  
Feb 5 . . . . . Manchester, NH  
Feb 19 . . . . . Manchester, NH  
Mar 26 . . . . . Manchester, NH  
Apr 16 . . . . . Manchester, NH  
May 7 . . . . . Manchester, NH  
May 21 . . . . . Manchester, NH  
Jun 30 . . . . . Manchester, NH  
Jul 22 . . . . . Manchester, NH  
Aug 6 . . . . . Manchester, NH  
Sep 23 . . . . . Manchester, NH  
Oct 21 . . . . . Manchester, NH  
Nov 23 . . . . . Manchester, NH  
Dec 20 . . . . . Manchester, NH

#### Challenge Test

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

Jan 8	Jul 1
Jan 29	Jul 23
Feb 19	Aug 13
Feb 26	Aug 19
Mar 4	Sep 3
Mar 19	Sep 24
Apr 9	Oct 15
Apr 29	Nov 5
May 21	Dec 3
Jun 11	Dec 17

#### IPC-6012 CIT Recertification

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

Feb 8 - Feb 11  
Jun 14 - Jun 17  
Nov 29 - Dec 2

#### Challenge Test

Jan 21 . . . . . Manchester, NH  
Feb 5 . . . . . Manchester, NH  
Feb 19 . . . . . Manchester, NH  
Mar 26 . . . . . Manchester, NH  
Apr 16 . . . . . Manchester, NH  
May 7 . . . . . Manchester, NH  
May 21 . . . . . Manchester, NH  
Jun 30 . . . . . Manchester, NH  
Jul 22 . . . . . Manchester, NH  
Aug 6 . . . . . Manchester, NH  
Sep 23 . . . . . Manchester, NH  
Oct 21 . . . . . Manchester, NH  
Nov 23 . . . . . Manchester, NH  
Dec 20 . . . . . Manchester, NH

#### Challenge Test

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

Jan 8	Jul 1
Jan 29	Jul 23
Feb 19	Aug 13
Feb 26	Aug 19
Mar 4	Sep 3
Mar 19	Sep 24
Apr 9	Oct 15
Apr 29	Nov 5
May 21	Dec 3
Jun 11	Dec 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

### 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-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 8 - 11  
Jun 14 - 17  
Nov 29 - Dec 2

#### Challenge Test

Jan 21 . . . . . Manchester, NH  
Feb 5 . . . . . Manchester, NH  
Feb 19 . . . . . Manchester, NH  
Mar 26 . . . . . Manchester, NH  
Apr 16 . . . . . Manchester, NH  
May 7 . . . . . Manchester, NH  
May 21 . . . . . Manchester, NH  
Jun 30 . . . . . Manchester, NH  
Jul 22 . . . . . Manchester, NH  
Aug 6 . . . . . Manchester, NH  
Sep 23 . . . . . Manchester, NH  
Oct 21 . . . . . Manchester, NH  
Nov 23 . . . . . Manchester, NH  
Dec 20 . . . . . Manchester, NH

#### Challenge Test

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

Jan 8	Jul 1
Jan 29	Jul 23
Feb 19	Aug 13
Feb 26	Aug 19
Mar 4	Sep 3
Mar 19	Sep 24
Apr 9	Oct 15
Apr 29	Nov 5
May 21	Dec 3
Jun 11	Dec 17

#### IPC-6012 CIS Recertification

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

Feb 8 - 11  
Jun 14 - 17  
Nov 29 - Dec 2

#### Challenge Test

Jan 21 . . . . . Manchester, NH  
Feb 5 . . . . . Manchester, NH  
Feb 19 . . . . . Manchester, NH  
Mar 26 . . . . . Manchester, NH  
Apr 16 . . . . . Manchester, NH  
May 7 . . . . . Manchester, NH  
May 21 . . . . . Manchester, NH  
Jun 30 . . . . . Manchester, NH  
Jul 22 . . . . . Manchester, NH  
Aug 6 . . . . . Manchester, NH  
Sep 23 . . . . . Manchester, NH  
Oct 21 . . . . . Manchester, NH  
Nov 23 . . . . . Manchester, NH  
Dec 20 . . . . . Manchester, NH

#### Challenge Test

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

Jan 8	Jul 1
Jan 29	Jul 23
Feb 19	Aug 13
Feb 26	Aug 19
Mar 4	Sep 3
Mar 19	Sep 24
Apr 9	Oct 15
Apr 29	Nov 5
May 21	Dec 3
Jun 11	Dec 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

### 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-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 8 - 11  
Jun 14 - 17  
Nov 29 - Dec 2

#### Challenge Test

Jan 21 . . . . . Manchester, NH  
Feb 5 . . . . . Manchester, NH  
Feb 19 . . . . . Manchester, NH  
Mar 26 . . . . . Manchester, NH  
Apr 16 . . . . . Manchester, NH  
May 7 . . . . . Manchester, NH  
May 21 . . . . . Manchester, NH  
Jun 30 . . . . . Manchester, NH  
Jul 22 . . . . . Manchester, NH  
Aug 6 . . . . . Manchester, NH  
Sep 23 . . . . . Manchester, NH  
Oct 21 . . . . . Manchester, NH  
Nov 23 . . . . . Manchester, NH  
Dec 20 . . . . . Manchester, NH

#### Challenge Test

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

Jan 8	Jul 1
Jan 29	Jul 23
Feb 19	Aug 13
Feb 26	Aug 19
Mar 4	Sep 3
Mar 19	Sep 24
Apr 9	Oct 15
Apr 29	Nov 5
May 21	Dec 3
Jun 11	Dec 17

#### IPC-6012 CSE Recertification

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

Feb 8 - 11  
Jun 14 - 17  
Nov 29 - Dec 2

#### Challenge Test

Jan 21 . . . . . Manchester, NH  
Feb 5 . . . . . Manchester, NH  
Feb 19 . . . . . Manchester, NH  
Mar 26 . . . . . Manchester, NH  
Apr 16 . . . . . Manchester, NH  
May 7 . . . . . Manchester, NH  
May 21 . . . . . Manchester, NH  
Jun 30 . . . . . Manchester, NH  
Jul 22 . . . . . Manchester, NH  
Aug 6 . . . . . Manchester, NH  
Sep 23 . . . . . Manchester, NH  
Oct 21 . . . . . Manchester, NH  
Nov 23 . . . . . Manchester, NH  
Dec 20 . . . . . Manchester, NH

#### Challenge Test

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

Jan 8	Jul 1
Jan 29	Jul 23
Feb 19	Aug 13
Feb 26	Aug 19
Mar 4	Sep 3
Mar 19	Sep 24
Apr 9	Oct 15
Apr 29	Nov 5
May 21	Dec 3
Jun 11	Dec 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

### 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 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: 10 am E.S.T.

Jan 11 - 14  
Feb 8 - 11  
Mar 1 - 4  
Apr 6 - 9  
May 3 - 6  
Jun 7 - 10  
Jul 12 - 15  
Aug 9 - 12  
Sep 7 - 10  
Oct 4 - 7  
Nov 15 - 18

#### IPC CID+ Certification

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

Jan 11 - 14  
May 17 - 20  
Jul 19 - 22  
Sep 13 - 16  
Nov 15 - 18

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*

Jun 2 . . . . . Peabody, MA  
Jun 4 . . . . . San Diego, CA

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

Feb 1  
May 3  
Aug 2  
Nov 1

### IDEA Essentials

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

Feb 4 - 5 . . . . . Peabody, MA  
Mar 29 - 30 . . . San Diego, CA  
May 24 - 25 . . . Anaheim, CA  
Sep 23 - 24 . . . Peabody, MA  
Dec 9 - 10 . . . . San Diego, CA

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

Feb 2 - 3  
May 4 - 5  
Aug 3 - 4  
Nov 2 - 3

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

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

### Hand Soldering Recertification

Jan 8 . . . . . Kansas City, MO	Jun 11 . . . . . San Diego, CA
Jan 8 . . . . . Manchester, NH	Jun 18 . . . . . Schaumburg, IL
Jan 8 . . . . . Toronto, ON	Jul 9 . . . . . Toronto, ON
Jan 15 . . . . . San Diego, CA	Jul 16 . . . . . Anaheim, CA
Jan 27 . . . . . Seattle, WA	Aug 20 . . . . . Manchester, NH
Jan 29 . . . . . Schaumburg, IL	Sep 17 . . . . . Watertown, CT
Feb 1 . . . . . Anaheim, CA	Sep 29 . . . . . Toronto, ON
Feb 19 . . . . . Manchester, NH	Oct 8 . . . . . Manchester, NH
Feb 26 . . . . . Akron, OH	Oct 8 . . . . . Seattle, WA
Mar 5 . . . . . Manchester, NH	Oct 22 . . . . . San Diego, CA
Mar 12 . . . . . Santa Clara, CA	Nov 1 . . . . . Schaumburg, IL
Apr 2 . . . . . Manchester, NH	Nov 12 . . . . . Kansas City, MO
Apr 9 . . . . . Anaheim, CA	Nov 12 . . . . . Manchester, NH
May 7 . . . . . Manchester, NH	Nov 19 . . . . . Palm Bay, FL
May 25 . . . . . Toronto, ON	Nov 19 . . . . . Watertown, CT
Jun 11 . . . . . 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

## 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

Feb 3 - 4 . . . . . Minneapolis, MN	Jul 12 - 13 . . . . . Minneapolis, MN
Mar 3 - 4 . . . . . Manchester, NH	Oct 7 - 8 . . . . . Minneapolis, MN
Mar 11 - 12 . . . . . Seattle, WA	Oct 11 - 12 . . . . . Schaumburg, IL
Mar 25 - 26 . . . . . Schaumburg, IL	Oct 18 - 19 . . . . . Manchester, NH
Jun 8 - 9 . . . . . Manchester, NH	Nov 8 - 9 . . . . . Seattle, WA
Jun 14 - 15 . . . . . Schaumburg, IL	Dec 15 - 16 . . . . . 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 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

## 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

Apr 2 . . . . . Manchester, NH  
 Aug 13 . . . . . Manchester, NH  
 Dec 20 . . . . . Manchester, NH

### Crimp Terminations Recertification

Apr 2 . . . . . Manchester, NH  
 Aug 13 . . . . . Manchester, NH  
 Dec 20 . . . . . Manchester, NH

### Electrostatic Discharge (ESD) Training

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

Feb 5  
 Jun 11  
 Oct 8

### Component ID Training

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

Mar 26  
 Jul 1  
 Oct 29

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.