TRAINING SERVICES

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Training Courses

Hands-on Skills Development and Creative Training for a Strong Work Force.

STI Electronics, Inc. is a world renowned, premier provider of training courses for the electronics assembly and related industries. STI has been an IPC Approved Training Center for over 16 years and currently offers Instructor and Operator level training for all currently offered certification programs.

IPC Courses

IPC-A-610 ACCEPTABILITY OF ELECTRONIC ASSEMBLIES

The IPC-A-610, The Acceptability of Electronic Assemblies, is an industry consensus standard published by IPC with an international reputation as the source for end product acceptance criteria for consumer and high reliability printed wiring assemblies. This document is a collection of visual quality acceptability requirements for electronic assemblies.

IPC-A-610 Certified IPC Trainer (CIT) Certification Program

32 Hours/Lecture
This program will greatly assist any company dedicated to providing IPC-A-610 training. CITs are qualified to conduct Certified IPC Application Specialist (CIS) training and certification programs according to the accept/defect criteria for the appropriate class of products. After successful completion of the course, CITs are certified for 2 years.

IPC-A-610 Certified IPC Trainer (CIT) Recertification Program

16 Hours/Lecture
CITs are certified for 2 years and must attend a 16-hour recertification class to maintain their certification status.

IPC-A-610 Certified IPC Application Specialist (CIS) Certification/Recertification Program

24 Hours/All Modules/Lecture
The CIS program is modularized to allow for maximum flexibility. Module 1 is an introduction to IPC-A-610 and also highlights IPC Professional Policies and Procedures. Modules 2 through 9 cover the following topics: Foreword, Applicable Documents, Handling Electronic Assemblies, Hardware Installation, Soldering, Terminal Connections, Through- Hole Technology, Surface Mount Assemblies, Component Damage/Printed Circuit Board Assemblies and Solderless Wire Wrap.
IPC-A-600 ACCEPTABILITY OF PRINTED BOARDS

This document has set the standard for PWB workmanship quality by providing comprehensive acceptance criteria with full color illustrations and photographs showing all types of printed board surface and internal conditions. Because of the importance to both the PWB manufacturer and assembler, the IPC-A-600 has become one of the most widely used documents published by IPC.

IPC-A-600 Certified IPC Trainer (CIT) Certification/Recertification Program
20 Hours/Lecture
This training program provides a detailed review of the IPC-A-600 criteria and concludes with a qualifying examination. CITs are qualified to teach CISs. After successful completion of the course, CITs are certified for 2 years.

IPC-A-600 Certified IPC Application Specialist (CIS) Certification/Recertification Program
20 Hours/Lecture
The Application Specialist training is modular and allows for any or all of the four sections of the document to be taught which allows for maximum flexibility in meeting individual training needs. Module 1 is an introduction to IPC-A-600 and also highlights IPC Professional Policies and Procedures, Module 2 focuses on Externally Observable Characteristics, Module 3 covers Internally Observable Characteristics, and Module 4 highlights Miscellaneous and Cleanliness requirements.

IPC J-STD-001 REQUIREMENTS FOR SOLDERED ELECTRICAL AND ELECTRONIC ASSEMBLIES

The J-STD-001 Requirements for Soldered Electrical and Electronic Assemblies has emerged as the preeminent authority for electronics assembly manufacturing. The standard describes materials, methods and verification criteria for producing high quality soldered interconnections. The standard emphasizes process control and sets industry consensus requirements for a broad range of electronic products.

IPC J-STD-001 Certified IPC Trainer (CIT) Certification Program
40 Hours/Lecture and Hands-On
This training program provides a detailed review of the J-STD-001 criteria and concludes with a qualifying examination and workmanship samples. CITs are qualified to teach CISs. After successful completion of the course, CITs are certified for 2 years.

IPC J-STD-001 Certified IPC Trainer (CIT) Recertification Program
16 Hours/Lecture and Hands-On
CITs are certified for 2 years and must attend a 16-hour recertification class to maintain their certification status. Instructors will have the opportunity to review the content of the standard in its current revision as well as discuss any clarification of intent resulting from Technical Committee activities. Testing and workmanship samples are required for successful recertification.

IPC J-STD-001 Certified IPC Application Specialist (CIS) Certification Program plus Space Addendum
40 Hours (Modules 1-6)/Lecture and Hands-On
The CIS program is modularized to allow for maximum flexibility in meeting specific training needs. Module 1 is an introduction to the process requirements of J-STD-001 and IPC Policies & Procedures, Module 2 focuses on Wires and Terminals, Module 3 emphasizes Through-Hole Technology, Module 4 emphasizes Surface Mount Technology, Module 5 focuses on Inspection, Inspection Methodology, and Process Control and Module 6 provides the requirements for the J-STD-001 Space Electronics Hardware Addendum. Modules 2-5 include a hands-on training exercise.
IPC-7711 REWORK OF ELECTRONIC ASSEMBLIES
IPC-7721 REPAIR AND MODIFICATION
OF PRINTED BOARDS AND ELECTRONIC
ASSEMBLIES

These documents illustrate industry approved techniques for through-hole and surface mount rework, land, conductor and laminate repair. They prescribe procedural requirements, tools, materials and methods used in the reprocessing of electronic assemblies. These documents provide both written and pictorial information to the user in an easy to use format.

IPC 7711/7721 Certified IPC Trainer (CIT) Rework/Repair and Modification Certification Program
40 Hours
This class provides skill-based training regarding rework, repair and modification procedures as covered in the IPC-7711 and IPC-7721 documents. CITs are qualified to teach CIS certification programs. After successful completion of the course, CITs are certified for 2 years.

IPC 7711/7721 Certified IPC Trainer (CIT) Rework/Repair and Modification Recertification Program
16 Hours/Lecture and Hands-On
CITs are certified for 2 years and must attend a recertification class to maintain their certification status. CITs will have the opportunity to review the content of the standard in its current revision as well as discuss any clarification of intent resulting from Technical Committee activities. Testing and workmanship samples are required for successful recertification.

IPC 7711/7721 Certified IPC Application Specialist (CIS) Rework/Repair and Modification Certification Program
56 Hours (Modules 1-9)/Hands-On
The CIS class is modularized to allow you to choose only the classes your company needs. This is a hands-on course. Module 1 is mandatory and highlights IPC Policies and Procedures and Common Procedures. Modules 2-9 consist of Wire Splicing, Through-Hole Component Removal and Installation, Chip and MELF Removal and Installation, Gull Wing Lead Component (SOT, SOIC, QFP) Removal and Installation, J-Lead Rework, Printed Wiring Board Circuit and Laminate Repair, and Conformal Coating Removal.

IPC/WHMA-A-620 REQUIREMENTS AND ACCEPTANCE OF CABLE AND WIRE HARNESS ASSEMBLIES

IPC/WHMA-A-620 is the first industry-consensus standard for Cable and Wire Harness Assemblies. This document covers criteria for Wire Preparation, Soldered Terminations, Crimping of Stamped and Formed Contacts and Machined Contacts, Insulation Displacement Connectors, Ultrasonic Welding, Splicing, Connectorization, Over-Molding/Potting, Marking/Labeling, Coax and Biaxial Cable Assemblies, Securing, Harness/Cable Electrical Shielding, Cable/Wire Harness Protective Coverings, Finished Assembly Installation and Solderless Wrap.

IPC/WHMA-A-620 Certified IPC Trainer (CIT) Certification Program
32 Hours/Lecture
This training program provides a detailed review of the IPC/WHMA-A-620 Requirements and Acceptance for Cable and Harness Assemblies and concludes with a qualifying examination. CITs are qualified to teach CISs. After successful completion of the course, CITs are certified for 2 years.
IPC/WHMA-A-620 Certified IPC Trainer (CIT) Recertification Program
16 Hours/Lecture
CITs are certified for 2 years and must attend a 16-hour recertification class to maintain their certification status.

IPC/WHMA-A-620 Certified IPC Application Specialist (CIS) Certification/Recertification Program
24 Hours (Modules 1-8)/Lecture
The CIS program is modularized to allow for maximum flexibility in meeting individual training needs. This Program will familiarize the student with the IPC/WHMA-A-620 Requirements and Acceptance for Cable and Harness Assemblies document. The program includes the general requirements of the specification and related documents, the difference between the classes of product, and defines the acceptance criteria for various conditions.

IPC/WHMA-A-620 Space Addendum Certified IPC Trainer (CIT)/Certified IPC Application Specialist (CIS) Program
40 Hours/Lecture and Hands-On
Prerequisite: IPC/WHMA-A-620 CIT Certification Course or IPC/WHMA-A-620 CIS Certification Course (All Modules)
This course covers the additional requirements of the IPC/WHMA-A-620 Space Electronics Hardware Addendum over those published in the IPC/WHMA-A-620. This course focuses on the hands-on skills necessary to produce cable assemblies that meet the requirements of the Space Addendum.

Training Courses

STI, as an Approved Training Site for Marshall Space Flight Center (MSFC), offers the following NASA courses including Staking/Conformal Coating and Cable & Harness Assembly.

Staking and Conformal Coating Training Program Operator/Inspector
32 Hours/Lecture and Hands-On
This course covers the requirements for staking and conformal coating per NASA and Marshall Space Flight Center standards NASA-STD-8739.1. Staking and Conformal Coating Coverage Requirements, Defects, and Inspection Criteria will be covered in great detail. Students will have 8 hours of actual conformal coating lab time.

Interconnecting Cables, Harness, and Wiring Training Program Operator/Inspector
40 Hours/Lecture and Hands-On
This extensive hands-on course teaches the trainee the processes and techniques for Cable and Harness Assembly, Crimp Connections, Wire Stripping, Wire Routing, Tying and Lacing per the NASA-STD-8739.4 and the Marshall Space Flight Center Tailoring Guidelines. This class also covers solder splices for joining insulated wires.

Customized Training Courses
STI has the expertise to design and develop customized training courses to meet your company's needs. Topics include Basic Soldering, Wave Soldering, Lead Free Soldering, Flex & Rigid Flex Soldering/Rework, and BGA Rework to name a few.
This training kit was designed by the Master IPC Trainers (MITs) at STI Electronics to provide MITs and Certified IPC Trainers (CITs) with an easy way to administer the physical inspection requirements of Module 5 of the IPC-J-STD-001 training program. These materials can also be used for IPC-A-610 or for any other training programs by simply modifying the provided answer key.

Kit Contents:
- Instructional Videos
- Board Layout Form
- Student Terminal Inspection Worksheets
- Student PCA Inspection Worksheet
- Instructor Answer Keys
- (6) Printed Circuit Assembly (PCA) Samples
- (8) Soldered Terminal Samples

$400.00

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For Course Offerings Visit us Online
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Staff

The staff of STI’s Training Services Department is unsurpassed in knowledge, experience and commitment to the students that pass through our classes. STI’s full time Master Instructors collectively have over 120 years of experience in industry and military applications.