



Minimize waste, restore assembly operation and reduce costs by shoring up key workmanship skills

IPC-7711/7721

Rework, Modification and Repair of Electronic Assemblies Training and Certification Program

Manufacturers and assemblers that want to realize dramatic cost savings by repairing and reworking electronic assemblies and printed circuit boards know the benefits of IPC-7711/7721. This widely used standard offers a wealth of industry-approved techniques on through-hole and surface-mount rework as well as land, conductor and laminate repair. It covers procedural requirements, tools, materials and methods for removing and replacing conformal coatings, surface mount and through-hole components. The standard also includes procedures for repairing and modifying boards and assemblies. In addition, it is now updated with additional support for lead free, BGAs and flex-print repairs.

Choose from Two Tiers of Instruction

- **Certified IPC Application Specialist (CIS)** training focuses on information and hand skills for operators charged with restoring function of boards and assemblies. Course fee covers: classroom training and an exam, a copy of the standard and certification.
- **Certified IPC Trainer (CIT)** training provides expanded information and materials to prepare individuals to deliver Certified IPC Application Specialist (CIS) training. Training, manufacturing and quality assurance professionals who have good hand-soldering skills and experience in teaching and assembly rework procedures are ideal candidates for instructor training. Course fee covers: classroom training and an exam; hands-on training and skills demonstration evaluation, a student handbook, a certificate of completion, and comprehensive materials for preparing and delivering CIS training (described below).

Why earn IPC-7711/7721 certification?

This outstanding program delivers a flexible, highly skills-oriented training program. Certification in this industry-developed and approved program can give your employees the skills they need to restore operation of expensive electronics assemblies — which in turn can reduce the costs and waste associated with scrapping flawed boards and assemblies. Both the CIT and CIS programs provide individuals with a portable credential that represents their understanding of IPC-7711/7721.



Training Modules

CIT training prepares the instructor to teach all of the CIS modules. However, in CIS training only the introductory module is a required element. Other CIS-level modules are taught based on your company's needs.

- Introduction to common rework and repair procedures
- Product classifications, skill levels, tools and materials
- Basic surface mount and through-hole component removal
- Land preparation and component installation
- Primary heating methods: conductive, convective and others
- Handling electronic assemblies
- Through-hole component removal and installation
- Chip and MELF component removal and installation
- SOIC/SOT, J-lead and QFP component removal and installation
- Wire splicing procedures
- Printed wiring board circuit and laminate repair
- Conformal coating removal



Photo courtesy
of PIEK

CIT Program Extras

To help assure CIT candidates' future success as trainers, the CIT program also includes:

- How to establish and maintain the integrity of the certification program
- Steps to effectively use the lesson plan and materials
- Tips on inspection
- Essential trainer skills

Training materials provided to CITs include:

- Instructor guide with lesson plans, reference material and training guidance for all of the rework and repair modules
- A copy of IPC-7711/7721, *Rework, Modification and Repair of Electronic Assemblies*
- Equipment parts list and artwork for test/practice kits
- Written tests with answer keys
- A CD-ROM containing training visuals, student evaluation forms, training report forms and other training support materials.

Make an investment today in the skills your employees need to help control cost and waste at your facility — with the **IPC-7711/7721, Rework, Modification and Repair of Electronic Assemblies Training and Certification Program!**

"I just had the opportunity to participate in the [CIT] certification course for IPC-7711/7721 as it is urgent for our company to comply with the necessary knowledge on electronics due to our business nature and customer requirements, and to give a professional character to our processes. ... The knowledge we acquired through this certification has been an excellent aid, since these tools are directly implemented in our processes and the improvements can be seen immediately, which can be translated as value added for the company."

Juan Carlos Mariscal Peña
New Programs Quality Control Engineer
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