



Lead Free Interconnection Technology

Scope:

International regulatory requirements for lead-free solder in electronic assembly are rapidly approaching and are already impacting the global supply chain. Whether you are an original equipment manufacturer or an electronic manufacturing services provider, you need to prepare for an inevitable move to a lead-free solder process. Lead-free assembly does have an impact on the design, manufacture and the potential reliability of printed board assemblies. Although the fundamental processes do not change, process parameters do change and there are process issues what are coming to light that do affect yields

Objectives:

This training will provide a practical insight into the inspection criteria, changes to process conditions and how to monitor the process to obtain the highest yields. The session will also illustrate the potential problems at each stage of manufacture and how to avoid them

Target Participants:

Lead-free soldering training suite is designed for operators, assemblers, technicians, engineers, supervisors, and managers involved in the implementation and operation of lead-free electronic assembly processes

Duration: 2 days

Course contents:

- **Introduction to conventional soldering techniques**
Types of solder alloys with Tin/Lead, Manual, wave and reflow soldering considerations using Tin/Lead solder alloys, Inspection techniques for Tin/lead solder alloys
- **ROHS, WEEE highlights**
ROHS and WEEE directives and important points covered under these directives, restricted items limits and its effects, Important exclusions under ROHS
- **Intro to Lead free soldering**
Lead free soldering considerations, Types of lead free solder alloys
- **Lead free coatings for PCBs and components**
Types of coatings for PCBs and components and its advantages and disadvantages
- **Lead free concepts for wave and reflow soldering**
Process optimization, Design considerations
- **Inspection criteria for lead free soldered joints**
Inspection and qualification criteria for lead free soldered joints, Discussions on various standards



Methodology

- **Course delivery :** STQC courses are normally delivered in English. However, depending upon the need the course are also delivered in Hindi or regional languages as desired. The STQC- courses are class room type and conducted at STQC Centres.
- **Faculties:** The faculties / trainers for this course are well qualified and experienced Scientists from STQC and have domain specific expertise.
- **Course Material:** The delegates will receive a course book prepared by STQC during the commencement of course. In addition, for hands on practice set of tools and kits will also be demonstrated / provided as appropriate / applicable.

Benefits

Upon qualification of this course, participants will be able to perform more professionally.

Further Information

For venue and dates of open advertised courses, please visit STQC website and contact course coordinator STQC Directorate, New Delhi.

Onsite course and /or tailor made courses can also be offered on specific request.