

ESD control for electronics assembly

Electrostatic discharge (ESD) is a common cause of damage to electronic components, especially sensitive ones like integrated circuits, transistors, and diodes. ESD occurs when a sudden flow of electricity between two objects with different electric potentials, such as a human body and a circuit board, creates a spark or a shock. ESD can degrade, destroy, or alter the performance of electronic components, leading to failures, defects, or reduced reliability. Therefore, managing ESD risks and preventing damage to electronic components is a crucial aspect of electronics manufacturing.

Due to the rapid advancements in the electronics industry, component circuitry density and technology are getting more complex and ESDS items are becoming more sensitive. To meet the challenges in this ever-growing field implementation of ESD control plans become essential.

Who can participate:

ESD Coordinator, technicians, Engineers engaged in electronics manufacturing process.

Instructor:

IPC Trainer qualified in ESD Program Associate certification program

Benefits of participation:

The course will highlight Electrostatic Discharge control for electronic assembly. The session helps introduce participants to the causes of ESD and the steps taken to mitigate its effects when handling, storing or transporting ESD-sensitive components in a manufacturing facility. You will learn some basic principles and best practices for ESD control and protection. After completing this course, you will be able to employ the preventive measures stipulated in ANSI/ESD S20.20 to mitigate the effects of electrostatic discharge when handling, transferring, or storing ESD-sensitive components in a manufacturing facility.

Mode of Training:

Instructor-led Training available through IPC India Regional

Certificate:

Participation certificate will be provided

Session 1 Safety and Handling

- Personnel and equipment safety
- Physical damage and contamination of electronic assemblies

Session 2 ESD Introduction

- Electrostatic Discharge
- Electrostatic Overstress
- Electrostatic discharge sensitive components

Session 3 Understanding effects of ESD on PCB Assemblies

- Physical principals of ESD
- Materials susceptible to ESD
- Assess ESD damages
- Strategies to control ESD

Session 4 Methods of ESD / EOS Prevention

- ESD for seated operations
- Static control cloth, ESD control for standing operation
- Continuous monitoring
- Electrical component damage
- ESD control in work area
- Handling / packaging ESD devices recommended

Course Schedule				
Session No	Session Name	Duration	Time	Description
1	Introduction	0:15	9.00 – 9.15 AM	Registration and Introduction of participants
	Overview	0:15	9.15 – 9.30 AM	General overview of the course
	Safety and Handling	00:30	9.30 – 10.00 AM	Presentation and Video
Break 0:15 mins				
2	ESD Introduction	0:45	10.15 – 11 AM	Presentation
	Understanding effects of ESD on PCB assemblies	1:00	11:00 – 12:00PM	Presentation and Video
Break 0:45 mins				
3	Methods of ESD / EOS prevention	3	12.45 – 3.45 PM	Presentation
Break 0:15 mins				
4	Methods of ESD / EOS prevention	0:30	4:00 – 4:30 PM	Presentation and Video
	Conclusion	0:15	4.30 – 4:45 PM	Q&A and Summarizing

Important Notes:

- Minimum batch size should be 10
- Session can be organized on Saturdays
- Participation certificate shall be provided to the candidates
- The course contents and materials are IPC USA Copyright. Copy & sharing not permitted
- Training other than Bengaluru travel cost of the trainer should be borne by company

For details contact to:

www.ipc.org/ipc-india-regional-team