



Designers Council

Certified Interconnect Designer (CID) Workshop and Exam

AGENDA

Two Full Days of Coursework Review, Exam on Third Day

Day One

8:00 am REGISTRATION AND PRESESSION COFFEE BREAK

8:30 am INTRODUCTION TO DESIGNER CERTIFICATION

DESIGN CONSIDERATIONS

- Interrelated Considerations for Design
- Copper Clad Laminates
- Thermal Management Techniques for Printed Boards
- Thermal Management Techniques for Assemblies
- Testing Techniques and Procedures
- Reliability Terms and Design Issues
- Purpose of Tooling Holes
- Purpose of Stiffeners

MINI-QUIZ AND DISCUSSION

LUNCH

LAYOUT PRINCIPLES

- Printed Board and Assembly Viewing Principles
- Functional Electrical Characteristics
- Schematic/Logic Symbols and Transformation
- Placement and Routing Techniques
- Characteristics of Grid systems
- Features Formed in Copper
- Legend and Polarity Marking
- Legend Marking Location

MINI-QUIZ AND DISCUSSION

COMPONENT AND ASSEMBLY ISSUES

- Considerations for Component Mounting
- Axial and Radial lead Mounting Differences
- Design Differences for SMT vs. Through Hole
- Automatic/Manual Placement and Insertion

5:00 pm ADJOURN

Day Two

8:00 am coffee

8:30 am RECAP of FIRST DAY

COMPONENT AND ASSEMBLY ISSUES (Continued from Day 1)

- Component Profiles and Socket Techniques
- Clinched and Unclinched Leads
- Bus Bar Mounting Characteristics
- Point-to-Point (Jumper) Wires

MINI-QUIZ AND DISCUSSION

PRINTED BOARD CHARACTERISTICS

- Board and Assembly Panelization
- Tolerancing Methods
- Hole Types and Their Tolerances
- Through Hole Land and Tolerance Requirements
- Purpose of Eyelets
- Conductive Pattern Location to Datum References
- Edge Board Connectors
- Solder Mask and Coating on Printed Boards

MINI-QUIZ AND DISCUSSION

LUNCH

DOCUMENTATION AND DIMENSIONING

- Minimum Drawing Requirements
- Minimum Requirements for Master Drawing
- Datum Dimensioning and Tolerancing Concepts
- Hole and Conductor Location Principles
- Tooling Hole Location Documentation
- Artwork Acceptance Criteria
- Non-Standard Parts Information
- Documenting Fastening Hardware

5:00 pm ADJOURN

Day Three

(Flexible start time – Testing may begin as early as 7:30 am or as late as 9:30 am)

7:30-9:30 am Certification Testing Begins – Test booklets distributed (104 Questions)

9:30-11:30 am Allotted exam time ends

12:00 pm Review of examination

3:00 pm Adjourn

TIMES ARE APPROXIMATE

* **Coffee/Refreshment Breaks at approximately 10:00 am and 3:15 pm**

* **Break for Lunch 12:30 pm to 1:30 pm** (*Reminder: You will be on your own for lunch.*)