



SIGNAL INTEGRITY & HIGH SPEED DESIGN AT BOARD LEVEL

SCOPE :

Advances in PCB design requirements continue to push the demand. And PCB design provide the power to provide individual tasks in the design process, provides a total design flow that allows engineers and designers to efficiently meet the demands of new technologies that require multilayer & high-speed design, advance packaging, design reuse, and more.

The course curriculums are presented in a logical, understandable & process sequential order, with attendee participation encouraged. This comprehensive and in-depth technical training course has and will benefit both the beginners as well as the experienced.

The objective of this course is to learn signal integrity & high speed design aspects at board level.

The key topics are:

- Basic concepts of EMI/EMC, cross talk, inductance, ground bounce & RF comm.
- Electromagnetic, Electric & Magnetic coupling
- Use of power & ground planes
- Use of parallel plane pairs
- Routing traces close to plane
- Loop: Loop area/Where's the loop
- Reflections & Transmission lines
- Propagation & critical length
- Transmission line terminations
- Termination placement in PCB design
- Controlling impedance when nets branch out
- Adjusting signal timing
- Guidelines for design & layout of high speed logic PCBs
- High speed routing on high density PCBs
- PCB impedance control
- Effect of vias on PCB traces
- Splitting planes for speed & power
- Slots in plane
- 90 degree corner
- Do's and Don't for high speed design

COURSE DATE: (2 Days)

TIMINGS: 09:30h to 17:00h

TARGET GROUP: Design/Manufacturing/QA personnel as well as Engineers/Technicians involved in Quality/Testing/Inspection / Production of Electronic manufacturing Technology.

FACULTY: IPC-USA Certified PCB Designer. Highly experienced & specialized in the subject.