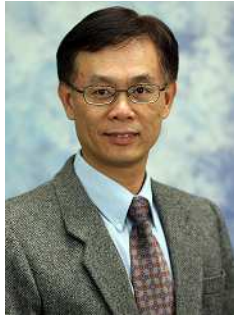


Progressive Advances in High Density Substrates & Packaging to Deliver More than Moore



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Objectives:

This course will outline the market dynamics driving the development of advanced substrates in today's industry landscape. Technical advancements have shifted from Personal Computers to Mobile Applications like Cell phones, MPEG players, etc. An overview of the technology revolution of substrates and their corresponding packages will be discussed. The miniaturization and functional integration in terms of 'More Moore' and 'More than Moore', respectively in IC packaging design will be discussed and the packaging assembly process will be introduced as well. Fine pitch wiring on substrates can be combined with embedded active and passive devices and has been proven as a technology. Examples/illustrations of advanced substrate and packages in servers, handhelds, and high end servers and communication equipments will be reviewed: PoP, Embedded Active Devices, Si interposers and Wafer Level Packages, etc.

What You Will Learn:

The audiences will understand the market drivers for the current and future technology development of electronic packages and understand the IC packaging design to layout the design consideration, packaging performance characterization and packaging qualification.

COURSE OUTLINE:

- Industry landscape
- Market dynamics driving package and substrate development
- IC packaging design consideration
- Substrate technology for high volume production and advanced application
- Embedded active/passive substrates
- Package miniaturization and functional integration representing 'More Moore' and 'More than Moore'
- Packaging performance characterization and qualification
- Examples/ illustrations of advanced substrate application: in servers, handhelds, and high end servers and communication equipments: PoP (Package on Package), EAD (Embedded Active Devices), Si interposers, WLP (Wafer Level Packages), etc.

ABOUT THE INSTRUCTOR:

Andy Tseng is Director of Technical Marketing at the ASE Group where he is employed since 1994. Currently he is dedicated for advanced QFN packages and copper wire bonding technology promotion. Prior to this assignment, Andy was Director of Engineering in ASE US region for five years, he lead a dynamic substrate design and packaging application team, which provided ASE customers with strong engineering support including IC packaging design, thermal & electrical modeling, package assembly processes, package qualification and failure analysis.

Before joining ASE Group, Andy worked as an electrical characterization engineer and hardware Engineer for several companies located at Hsinchu/Taiwan such as electrical modeling for PCB design, electrical modeling in Satellite Communication for printed circuit board layout.

Andy is the member of "Assembly and Manufacturing Technology" Committee in ECTC, USA. He serves as session chair in ECTC for many years since 2005. Andy also is the member of "Emerging Technology" in ICEPT-HDP, China. Andy has published numerous papers on different packaging technologies.

Andy earns an MS degree in Physics from Northern Illinois University in Dekalb/Illinois, as well as an MS degree in Electrical Engineering from Santa Clara University in Santa Clara/California. Andy's BS degree is in Physics from the National Cheng-Kung University in Tainan/Taiwan.