

Electromagnetic Compatibility & Signal/Power Integrity (EMC+SIPI)

EMC, SI, PI:

Electromagnetic Compatibility (EMC), Signal and Power Integrity (SI/PI), and Immunity problems can significantly decrease the **reliability**, **increase the cost**, and **delay the development schedules of modern electronic systems**.

Our mission is to support EMC/SI/PI research and education with the goal of developing the knowledge base, tools, and people necessary to solve today's EMC/SI/PI problems and address the EMC/SI/PI problems of the future.

EDUCATIONAL OPPORTUNITIES:

Working in EMC lab is about more than just coursework. Our students work **hand-in-hand with industry on leading-edge research**, exposing them not only to a wide base of technology critical to today's problems but also developing their ability to interact professionally with other engineers and leaders in the field. This preparation makes our students in high demand when they graduate, and they go on to work in some of the world's top companies and organizations.



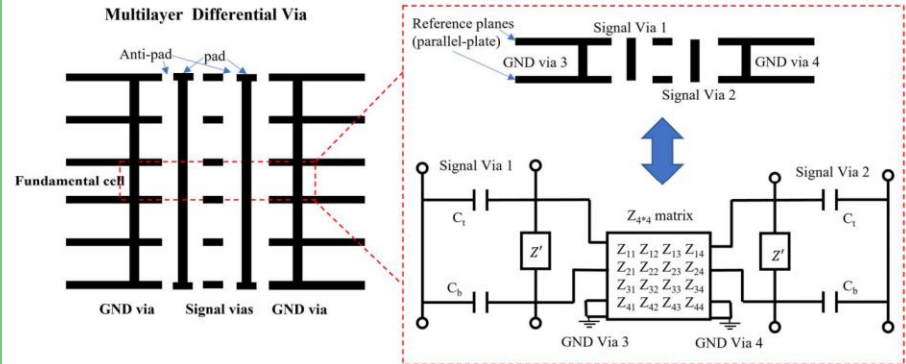
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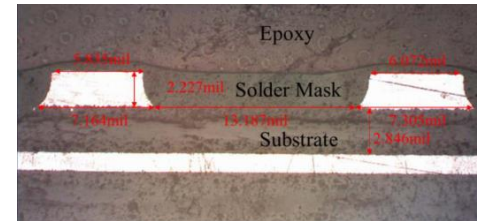
Ph.D., M.S., and B.S. School of Electrical Engineering,
Korea Advanced Institute of Science and Technology (KAIST)

Recent Funding:

- NSF IUCRC Center of EMC (Intel, Cisco, Apple, Google, Amazon, etc.)
- Meta (Facebook)
- NIH MBArC



< Proposed physics-based equivalent circuit model of the differential via with individual anti-pad >



< Cross-sectional geometry information for the microstrip >



< Podcast on Crosstalk >

Keywords

Signal Integrity (SI), Power Integrity (PI), Temperature Integrity (TI), Electrostatic Discharge (ESD), High-speed SerDes Channel Modeling, High-speed Printed Circuit Board (PCB) Material Characterization, Particle Simulation on Semiconductor Devices

Recognitions

- **Chair**, IEEE Region 5 St. Louis Section
- **Vice-Chair**, IEEE EMC Society Technical Committee 10
- **IEEE-HKN Outstanding Young Professional Award**
- **Herbert K. Mertel Young Professional Award**, IEEE EMC Society
- **College of Engineering and Computing Dean's Scholar**