



CERTIFICATION

This is to certify that

Phu Hoang Nguyen

has successfully completed the course

**Advanced PCB design/layout techniques for good
EMC**

Date **1 AUG 2025**

Course tutor

Keith Armstrong

Keith Armstrong



Course duration: 6h 38min **Course content:** When should we use advanced techniques, Future trends and their implications, Guidelines, approximations, simulations and virtual design, Advanced EM zoning, Planes for 0V(GND) and other power rails (PWR), RF-bonding PCB Reference Planes at EMZ boundaries, Power supply decoupling, Switching power converters (AC/DC, DC/DC, DC/AC, etc.), Matched transmission line techniques, Layer stacking and trace routing, Devices with BGA packages and/or multiple DC rails, Some useful references, sources, and webinars

www.fedevel.com

Certificate number: 1a77582c8943256b596a4d660