



# CERTIFICATION

This is to certify that

**Sergio Lopez Casablanca**

has successfully completed the course

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

Date **16 OCT 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](http://www.fedevel.com)

**Certificate number:** 1a77680c6923754b294a9d968