



QEEE COURSES

DIFFERENTIAL AMPLIFIERS – ANALOG ELECTRONIC CIRCUITS

COURSE CONTENT:

Module 1:

- Understanding of single ended, pseudo differential, differential and fully differential amplifier
- Differential operation requirement, process, voltage and temperature (PVT) understanding
- Amplifier design check list in industry
- Single ended differential operation, basic differential pair (qualitative and quantitative analysis)

Module 2:

- Common mode and small signal gain for differential pair with various loads such as resistive, diode and current
- Miller theorem

Module 3:

- Frequency response analysis: poles, zeros and bandwidth calculation(3-dB and unity gain bandwidth)