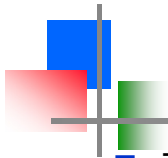


Analog CMOS IC Layout

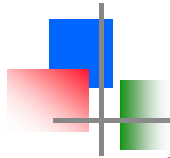
Lecturer : Poki Chen



Analog Integrated Circuit Design & Layout

- Tutors: Prof. Poki Chen
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- Website: <http://homepage.ntust.edu.tw/poki/>
- Major: Analog / Mixed-Mode IC Design & Layout
- References
 - Internet Surfing Information
 - Alan Hastings, “**The Art of Analog Layout**,” 2nd Ed., Prentice Hall ,2005
 - Hong-Yi Huang, Lecture Notes for “Analog Integrated Circuits Design and Layout,” Mixed Signal Consortium, MOE, Taiwan
 - Behzad Razavi, “**Design of Analog CMOS Integrated Circuits**,” International Edition 2001.
 - Philip E. Allen, “**CMOS Analog Circuit Design**,” 2nd Ed., Oxford University Press, 2002
- Course Assessment:
 - 50% LABs
 - 50% Final Project/Report





Contents

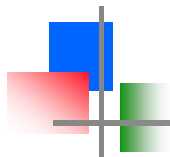
- Introduction to Analog Design
- Manufacturing Process
- Mismatch vs Strategies
- Failure Mechanisms
- Layout of MOS Transistor
- Cadence, Calibre, HSPICE, and LABs
- Case study of High Accuracy MOS Layout
- The Wire
- Layout of Resistor
- Yield Consideration and Layout Optimization
- Layout of Capacitor
- Layout of Inductor
- ESD Layout
- Final Project



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Analog IC Layout

Introduction-3

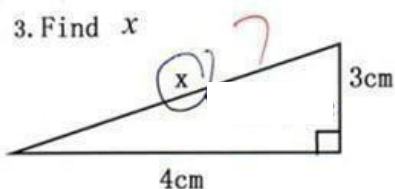


Final Test?

1.
$$\frac{\sin 2x}{2n \cos x}$$

2. 已知 $\lim_{x \rightarrow 8} \frac{1}{x-8} = \infty$

求 $\lim_{x \rightarrow 5} \frac{1}{x-5} =$



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Analog IC Layout

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