EE 233 Lab Kit

General remarks

All resistors are 5%, l/4 Watt or l/2 Watt.

Students might need spare components.

Components required for all laboratories

Quantity	Description	Comments
1	superstrip	for building circuits
Many	wire connectors	to connect signals on superstrip

Lab 1: Step response of RC circuits

Quantity	Description	Comments
1	50 Ω resistor	
1	10 KΩ potentiometer	3-terminal potentiometer
2	10 KΩ resistor	
1	27 KΩ resistor	
2	0.01 μF capacitor	

Lab 2: Operational amplifiers

Quantity	Description	Comments
2	MC 4741C opamp	or equivalent
1	1 KΩ resistor	
3	5 KΩ resistor	
1	19 KΩ resistor	
1	10 KΩ potentiometer	3-terminal potentiometer

Lab 3: Integrators, differentiators, and simple filters

Quantity	Description	Comments
3	MC 4741C opamp	or equivalent
3	1 KΩ resistor	
3	10 KΩ resistor	

1	20 KΩ resistor	
3	0.01 μF capacitor	
1	0.2 μF capacitor	

Lab 4: Transmit filter design for ADSL modems

The components to be used are resistors, capacitors, and operational amplifiers. The opamp may be the MC 4741C opamp (or equivalent) used in the previous experiments. The component values for resistors and capacitors vary based on each lab team's design, so the lab kit does not specify component values. The range of resistor values is 100 Ω to 3 KΩ; the range of capacitor values is 1 nF to 500 nF. These components are readily available from the stockroom.

Lab 5: Laboratory exam

The exam will use components already available to students.

Document history

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