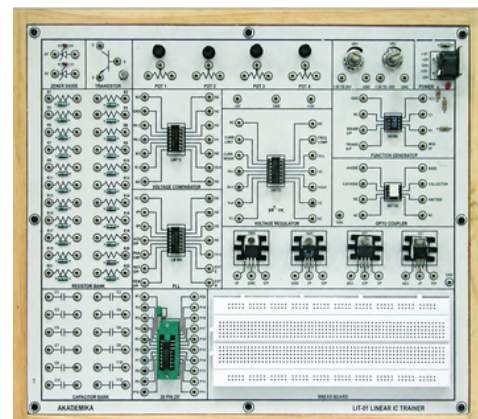


BEL-LIT

Linear IC Trainer Kit



FEATURES

- Single board system, capable of covering over 20 Experiments
- Covers wide range of Analog Applications using monolithic IC's such as Op-Amp, PLL, Function Generator, Opto-Coupler and Regulators
- IEEE symbol of all components provided on the PCB.
- All Components are visible clearly on the top of the PCB.
- Mobile based Interactive e-Manual

SPECIFICATIONS

On board Dual power supply

- +1.5V to +20V with Helical pot
- -1.5 V to -20V with Helical pot

Fixed Power Supply : $\pm 25V$, $\pm 12V$ and GND

On-board linear ICs:

- High Speed Comparator IC (LM710).
- Function Generator IC (NE566).
- Phase Locked Loop IC (LM565).
- Fixed Voltage regulators (7805, 7905)
- Variable Voltage Regulators (2-317, 337)
- Opto Coupler (MCT2E).
- On-board resources such as Resistor, Capacitor, Diode and Potentiometer banks of different values:
- **Resistor Bank** (22 resistors)
Range from : 100E to 510k Ω
- **Capacitor Bank** (12 capacitors)
Range from : 0.1 μF to 680PF
- **Potentiometer Bank** (4 Pots)
Range from : 1k Ω to 100k Ω
- **Transistor** : (1 no) NPN Transistor-BC547
- **Diodes Bank** (2 Zener Diodes)
Zener Voltage : 2.4V & 5.1V
- Bread board
- 20 pins ZIF socket

EXPERIMENTS

Using high speed comparator

- Study the parameters
- To measure slew rate
- To measure input offset voltage, input offset current
- To measure CMRR
- To measure response time comparator
- Application as comparator
- Application as pulse width modulator
- Application as level detector and schmitt trigger

Function generator

- To study the linearity and accuracy of the output waveforms
- Study of frequency modulator

Phase locked loop IC

- Measurement of centre frequency F_c
- To study VCO linearity and sensitivity
- Measurement of capture range and lock range
- PLL as a multiplier

Fixed voltage regulator

- To measure line regulation
- To measure load regulation
- To boost the output voltage using Zener diode and Resistor

Variable voltage regulator

- To measure line regulation
- Application as adjustable regulator with improved ripple rejection

Opto-coupler

- Application as voltage translator

Voltage regulator

- To study the application as low and high voltage regulator
- Load and line regulation