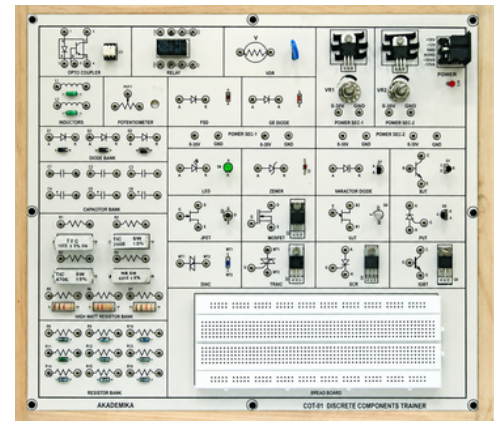


BEL-COT

Discrete Component Trainer Kit



FEATURES

- Single board system, capable of covering over 20 Experiments
- Covers basic semiconductor devices such as Diodes, BJT, FET, MOSFET, UJT, PUT, DIAC, TRIAC, SCR, IGBT.
- 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 resources such as Resistor, Capacitor, Diode and Potentiometer banks of different values should be available.
- On-board Relay and Opto-coupler
- On-board variable regulated dual power supply (500mA) range from 0V to 30V
- Resistor Bank (16 resistors)
Range from 100E to 620Ω for 5 watt
Range From 1KΩ to 10KΩ for 2 watt
Range from 100Ω to 200KΩ for ¼ watt
- Capacitor Bank (6 capacitors): Range from 0.1μF to 100 μF
- Inductor (1mH)
- Potentiometer(10K)
- Diode (1N4007)
- Good quality Breadboard (175mmX63mm) provided
- Semiconductor Device Range:
 - Germanium Diode(1N60)
 - Fast Switching Diode(1N4148)
 - Zener Diode(5.1V)
 - Light Emitting Diode (GREEN LED 5mm)
 - Bipolar Transistor (BC547)
 - Uni-Junction Transistor 2N2646 (UJT-N channel)
 - Field Effect Transistor (JFET BF245)
 - MOSFET(IRF-Z44N)
 - DIAC(DB3)
 - TRIAC (BT136)

- IGBT (IRG4BC30S)
- Silicon Controlled Rectifier (SCR TYN604)
- Voltage Dependent Resistor(VDR)
- Opto-Coupler (MCT2E)
- Varactor Diode (MV209)
- Relay (2A0214)

EXPERIMENTS

- Study the working of Resistors, Capacitors, Inductors, Potentiometer, Relay
- Study the frequency response working of Opto-Coupler
- Characteristics study of Si-Diode, FSD-Diode, Ge-Diode, Zener Diode, LED, Varactor Diode, VDR
- Characteristics study of BJT in CE, CB and CC mode
- Characteristics study of JFET, MOSFET, UJT, PUT, DIAC, TRIAC, SCR, IGBT
- To find the value of unknown resistance
- Study of Ohm's law
- Study of Kirchoff's voltage and current law
- Study of voltage and current divider rule
- Diode capacitance variation
- Diode clipper and clamper
- Logic gate using diode
- Voltage multiplier
- Zener diode regulator
- Power supply filter
- Effect of frequency on R, L, C
- RC integrator and differentiator
- RC filters
- Time constant of a series RC circuit
- Transient response of series RC
- Transient response of series RL
- RLC series and parallel resonance