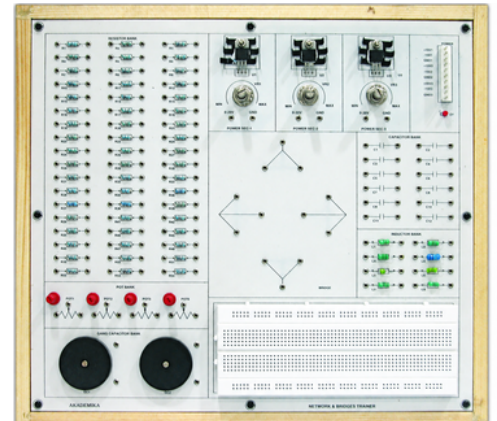


BEL-NBT

Networks And Bridges Trainer Kit



FEATURES

- Single board system, capable of covering multiple Experiments on basic electrical networks and bridge circuits.
- 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

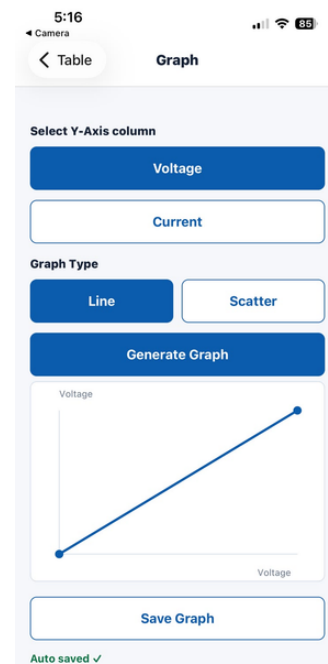
SPECIFICATIONS

- Three variable regulated DC power supplies of 0-20 V with helical potentiometer control.
- Fixed supply sections shall be available as +25V1, -12V1, GND1; +25V2, -12V2, GND2; +25V3, -12V3, GND3.
- On-board resistor bank, capacitor bank, gang capacitors, potentiometers and inductor bank.
- Resistor Bank (54 resistors)
Range from 4.7Ω to $150K\Omega$ for $\frac{1}{4}$ watt
- Capacitor Bank (12 capacitors)
Range from 33 pF to 47 μ F
- Inductor Bank (8 inductors)
Range from 1 mH to 10 μ H
- Potentiometer Bank (4 Potentiometers)
Range from 1K to 100K
- Gang capacitors shall be provided for variable capacitance adjustment.
(PF and μ F)
- Breadboard

EXPERIMENTS

- Superposition theorem
- Thevenin's theorem
- Norton's theorem
- Maximum power transfer theorem
- Reciprocity theorem
- Two port network parameter (Z and Y parameter)
- To find unknown resistance using Wheatstone bridge
- To find unknown capacitance using De'saunty's bridge
- To find unknown low resistance using Kelvin's bridge

- Maxwell's theorem
- Verification of Ohm's law
- Verification of Kirchoff's law (KCL and KVL)
- Verification of Mesh current analysis
- Verification of Nodal voltage analysis
- Verification of source transformation
- To verify compensation theorem
- Study of resistor ladder network
- To verify Millman's Theorem Assignments
- Hay's bridge
- Schering bridge
- Andersen bridge
- Owne's bridge
- LC resonance



Mobile based Interactive e- manual