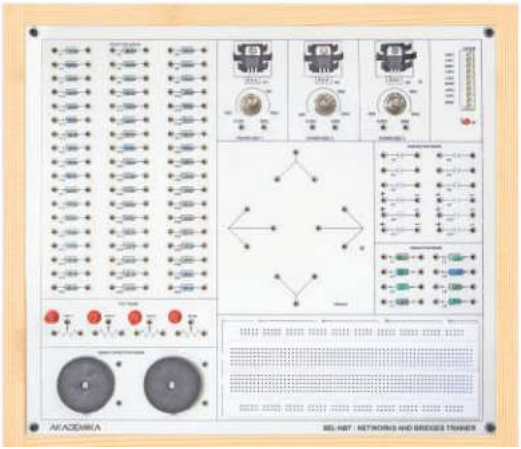
BEL - NBT
Networks And Bridges Trainer



FEATURES

- Demonstrates the basic theorems, the two port network parameters, different AC bridges and perform analysis of network.
- IEEE Symbol of all components provided on the PCB On-board components.
- Single board system capable of covering minimum 10 Experiments

SPECIFICATIONS

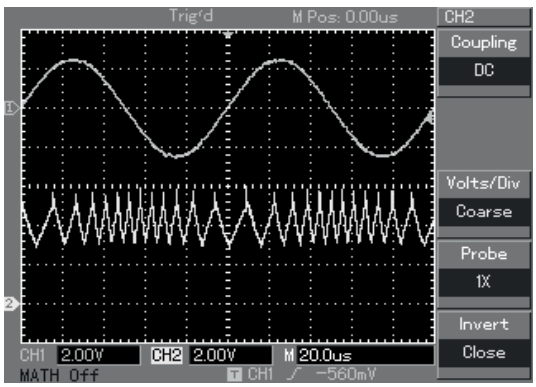
- Power Supply:
  Fixed Power Supply +25V1, -12V1, GND1, +25V2, -12V2, GND2, +25V3, -12V3, GND3.
- Variable current source should be provided
- On-board components:
- On-board power supply, Resistor, Capacitor, Inductor bank
- Breadboard (175mmX63mm) area to allow construction of circuits using external components along with on board resources.
- Resistor Bank: 54 nos.
  Range from 4.7Ω to 150K.
- Capacitor Bank: 12 nos.
  Range from 33µF to 47PF.
  Gang capacitors: pF and µF
- Inductor Bank: 8 nos.
  Range from 1mH to 10µH
- Potentiometer Bank: 4 nos.
  Range from 1K to 100K.
- Interconnection points & test points

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
- Maxvell'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



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