



Experimental Training Board has been designed specifically to study the characteristics of a Field Effect Transistor. The board is absolutely self contained and requires no other apparatus.

Practical experience on this board carries great educative value for Science and Engineering Students.

#### Object:

- To study the characteristics of Field Effect Transistor.
- 1. Measurement of  $I_{DSS}$
- 2. Plot the static drain characteristics of FET
  - 2.1 Drain Current  $I_D$  vs Drain Voltage Characteristics for different fixed values of  $V_{GS}$
  - 2.2 Drain Current  $I_D$  vs Gate Bias Characteristics for different fixed values of  $V_{DS}$
- 3. Show that FET work as VVR (voltage variable resistance).
- 4. Calculate the FET parameters (drain dynamic resistance  $r_{ds}$ , mutual conductance  $g_m$ , and amplification factor  $m$ ) at a given operating point.

#### Features

- The Board consists of the following built-in parts:
  1. 0 to 20V D.C. at 50mA, continuously variable Power Supply.
  2. 0 to 12V D.C. at 50mA, continuously variable Power Supply.
  3. Two Digital Voltmeter DC 3½ Digit having range of 0- 20V.
  4. Digital Current meter DC 3½ Digit having range of 0- 20mA
  5. One Field Effect Transistor.
  6. Adequate no. of other electronic components.
  7. Mains ON/OFF switch, Fuse and Jewel light.
  8. The unit is operative on 230V  $\pm$ 10% at 50Hz A.C. Mains.
  9. Adequate no. of patch cords 4mm length 50cm.
- Good Quality, reliable terminal/sockets are provided at appropriate places on panel for connections /observation of waveforms.
- Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.
- Weight : 3 Kg. (Approx.)
- Dimension : W 340 x H 110 x D 210

Note: Specifications are subject to change.

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