



**46705** Single Phase PWM Inverter is compact, ready to use experiment board for single phase PWM inverter circuit. This board is useful for students to study and understand operation of single phase PWM firing circuit and single phase PWM bridge inverter using MOSFET/ IGBT. Power Electronics Experiment Boards are designed as a comprehensive Modular solution for beginners to explore the fundamentals of a variety of basic building blocks in Power Electronics. The boards are very user friendly and support selflearning through flexibility of making circuit connections. Schematic diagrams on the boards provide easy understating of the concepts. Test points are provided to observe the waveforms/ signals and to measure voltages at different nodes. The boards can be used as standalone unit.

**Objects:**

1. Study of the single phase PWM firing circuit.
2. Study the operation of single phase PWM bridge inverter using MOSFET.
3. Study the operation of single phase PWM bridge inverter using IGBT.

**Features**

The board consists of the following built-in parts:

1. Two + 12V DC Power Supply.
2. MOSFET Bridge Inverter.
3. IGBT Bridge Inverter.
4. WM Firing Circuit, using Inverter and Comparator.
5. Square wave generator using Integrated Comparator.
6. Triggering Circuit,
7. Single Phase control rectifier Firing circuit.
8. Adequate no. of other Electronic Components.
9. Load Resistor.
10. Mains ON/OFF switch, Fuse and Jewel light.
11. The unit is operative on 230VAC  $\pm 10\%$  at

50Hz.

12. Adequate no. of patch cords 4mm length 50cm.
13. Good Quality, reliable Shrouded socket are provided at appropriate places on panel for connections/ observation of waveforms.
14. Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.
15. Weight (Board) : 2.100 Kg. (Approx.)
16. Dimension : W340 x H 125 x D210 mm.

**List of Accessories:**

1. Patch cord 4mm length 50cm. Red ..... 02
2. Patch cord 4mm length 50cm. Black..... 02

**Other Apparatus Required (Not Included):**

1. Dual trace CRO 20MHz

Note: Specifications are subject to change.

