



**Sciencetech 2724** is a learning platform which is very useful for Students to understand the concept of DC to DC chopper on various load configurations. 2724 is provided with various devices like MOSFET, IGBT, Transistor & SCR.

### Features

- Built in DC Power Supply
- On board PWM circuit
- On board MOSFET, IGBT, Transistor & SCR
- Test points provided to check outputs at different blocks
- DC motor 24V 500mA with 100 RPM as load
- Easy to operate and understand
- Sockets provided to make different connections

### Scope of Learning

#### Study of :

- PWM circuit.
- MOSFET based Step Down Chopper with R load.
- MOSFET based Step Down Chopper with RL load.
- MOSFET based Step down Chopper with Motor load.
- IGBT based Step Down Chopper with R load.
- IGBT based Step Down Chopper with RL load.
- IGBT based Step down Chopper with Motor load.
- Transistor based Step Down Chopper with R load.
- Transistor based Step Down Chopper with RL load.
- Transistor based Step down Chopper with Motor load.
- SCR based Step Down Chopper with R load.
- SCR based Step Down Chopper with RL load.
- SCR based Step down Chopper with Motor load.

### Technical Specifications

- On board PWM circuit : Triangular Comparator circuit
- Frequency variation : 27 Hz to 5 KHz (approx.)
- PWM variation : 0-90%
- DC Geared motor : 24V/ 0.5A, 100 RPM
- Interconnections : 2 mm sockets
- MOSFET : MOSFET IRFZ44N, 55V, 49A
- IGBT : IGBT G4BC20S, 600V, 10A
- Transistor : Transistor TIP122, 100V, 5A
- SCR : SCR TYN 616, 600 V, 16A
- Test points : 4 nos.
- Mains Supply : 220V/110V; 50 Hz / 60 Hz
- Product Tutorial : Online on [www.SciencetechLearning.com](http://www.SciencetechLearning.com)
- Dimensions (mm) : W 420 x D 255 x H 100
- Weight : 1 Kg. (approximately)
- Operating Conditions : 0-40°C, 85% RH
- Included Accessories : 2mm Patch cords (Red) 16"-1 no.  
2mm Patch cords (Black) 16"-1 no.  
2mm Patch cords (Blue) 16"-8 nos.  
Mains cord-1 no.

#### Optional :

Simtel Power Electronics Simulation Software