# Flyback Converter

## Scientech 2728



Scientech 2728 is a compact and user friendly learning platform which is very useful for students to understand the concept of PWM generation technique, and Flyback Converter Configuration on various load configurations. It is also helpful for understanding the converter output on various filter configurations. Platform explains PWM generation technique, Flyback Converter Configuration, and power isolation circuit to measure the isolated output.

#### **Features**

- · Easy to operate & understand
- Optically isolated PWM generation with Gate driver
- Inbuilt isolation section for measurement of the signal
- Space provided for external inductor connection
- Test Points provided at output of each section to measure the signals

### **Scope of Learning**

- To study PWM generation
- To study Flyback Converter with different filter components and loads

## **Technical Specifications**

Input DC Voltage : 12-15V/3A

PWM Frequency Variation : 5KHz to 22KHz

Duty Cycle Variation : 7% to 45%

**Load Assembly** : RL1 & RL2 (75Ω & 750)

Power Isolation Section : Single channel
Power device : MOSFET IRF3205

MOSFET/IGBT Driver : MC33153

Inductors : L1 (3.4 $\mu$ H), L2 (3.8 $\mu$ H),

L3(optional)

Capacitors : C1 ( $1000\mu F/63V$ )

C2 (470μF/63V) C3 (220μF/63V)

Test Points : 18 nos.

Banana Socket insert 2mm: 39 nos.

Product Tutorial : Online on

www.ScientechLearning.com

Dimensions (mm) : W 326 x D 252 x H 52

Power Supply : 110V - 260V AC, 50/60Hz

Weight : 1.5Kg (approximately)

**Operating Conditions**: 0-40°C, 85% RH

**Included Accessories**: 2mm Patch Cord 16"-3nos.

2mm Patch Cord8"-5nos. BNC to BNC Cable-1no. BNC to Test Probe-1no. Mains Cord.-1no.