Buck Converter Scientech 2726



Scientech 2726 is a compact and user friendly learning platform which is very useful for students to understand the concept of PWM generation technique, and Buck Converter topology on various load configurations. It is also helpful for understanding the converter output on various filter configurations. Platform explains PWM generation technique, Buck converter operation, 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 Buck Converter with different filter components and loads

Technical Specifications

Input DC Voltage : 24V/1A

PWM Frequency Variation: 1KHz to 22 KHz **Duty Cycle Variation**: 10% to 80%

Load Assembly : RL1 & RL2 (23.5 Ω & 15.6 Ω)

Power Isolation Section : Single channel

Power device : IGBT TΩSHIBA 20JT101

MOSFET/IGBT Driver : Single channel floating driver IR2117 Inductors : L1 (1.5mH), L2 (404uH), L3 (optional)

Test Points : 17 nos. **Banana Socket insert 2mm**: 41 nos.

 $\begin{array}{ll} \textbf{Product Tutorial} & : \ \Omega n line \ on \ www. Scientech Learning. com \end{array}$

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

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

 Weight
 : 1.5Kg (approximately)

 $\begin{array}{lll} \textbf{Operating Conditions} & : & 0\text{-}40^{\circ}\text{C}, 85\% \, \text{RH} \\ \textbf{Capacitors} & : & \text{C1} \left(1000 \mu\text{F}/63\text{V}\right) \\ \end{array}$

C2 (220μF/63V) C3 (100μF/50V)

Included Accessories : 2mm Patch Cord Red 16", 8"-2nos.

2mm Patch Cord Black 16"-1no. 2mm Patch Cord Black 8"-2nos. 2mm Patch Cord Blue 8"-3nos.

BNC to BNC Cable-1no.
BNC to Test Probe-1no.

Mains Cord-1no.