



46917 is a compact and user friendly learning platform which is very useful for students to understand the concept of PWM generation technique, and Buck-Boost 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-Boost Converter operation, and power isolation circuit to measure the isolated output.

## **Features**

- 1. Easy to operate & understand
- 2. Optically isolated PWM generation with Gate driver
- 3. Inbuilt isolation section for measurement of the signal
- 4. Test Points provided at output of each section to measure the signals

## Object

- 1. To study PWM generation
- 2. To study Buck-Boost Converter with different filter components and loads

## **Technical Specifications**

Input DC Voltage 24V/1A

PWM Frequency Variation 1 KHz to 20 KHz Duty Cycle Variation 20% to 60%

RL1 & RL2 (75Ù & 75Ù) Load Assembly

Power Isolation Section Single channel MOSFET IRF450 Power device

MOSFET/ IGBT Driver IR2117

Inductors L1 (5.7  $\mu$ H); L2 (3.8  $\mu$ H);

L3 (1.5mH); L4 (354µH)

C1 (1000 $\mu$ F/63V); C2 (470 $\mu$ F/63V) Capacitors

C3 ( $1000\mu F/63V$ ); C4 ( $470 \mu F/63V$ )

**Test Points** 23 nos. Banana Socket 39 nos.

Dimensions (mm) W 326 x D 252 x H 52 Power Supply 110V - 260V AC, 50/60Hz Weight 1.5Kg (approximately)

**Operating Conditions** 0-40oC, 85% RH

**Included Accessories** 2mm Patch Cord 16"-3 nos. 2mm Patch Cord 8" -9 nos.

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

Note: Specifications are subject to change.

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