

SMPS for Mobile Phone

Model : SB-127



SINCOM SB-127 SMPS for Mobile Phone is a remarkable very useful simply designed trainer to study the operation, line and load regulation characteristics of a Switching Mode Power supply (SMPS) for Mobile Phone application in a simple experimental way. The Trainer is without meters and has the facility to connect the external analog or digital Voltmeter and Ammeter in the circuit.

Features

- ❖ User friendly Design
- ❖ +5V SMPS Regulated DC Output voltage
- ❖ Wide AC Input Voltage range
- ❖ IC Based PWM Controller and Fly-back converter
- ❖ Opto-coupler IC based Feedback signal converter
- ❖ EMI Filter and Flyback SMT Transformer
- ❖ MOSFET as Switching Device
- ❖ Schottky Diode as a Rectifier with Capacitor Feedback
- ❖ Variable Resistive Load
- ❖ Low Output voltage Ripples
- ❖ High operating Temperature range
- ❖ Facility to apply variable single phase AC Input voltage from Dimmerstat
- ❖ Very Easy for Operation
- ❖ Multi color Circuit Diagram is screen printed on the front of the white color acrylic board
- ❖ Enclosed in an attractive, light weight, High Quality, Poly Coated Imported Pine Wooden cabinet
- ❖ Facility to connect external Digital/Analog Voltmeter and Ammeter
- ❖ Interconnections by 2mm high quality banana sockets and pins
- ❖ Maximum Test points to explore all the corners of experiment
- ❖ 1 Year Warranty

Technical Specifications

▪ AC Mains Power Supply	: $230V \pm 10\%$, 50Hz
▪ AC Input Voltage Range V_{in}	: Single Phase AC $10V-280V$, 50Hz

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An ISO 9001:2015 Co.

▪ Regulated DC Outputs Vo	: +5V
▪ Output Load Current	: 1A Max
▪ Transformer type	: Flyback SMT Transformer
▪ Input Rectifier and Filter	: Full Wave bridge Rectifier with Capacitor filter
▪ Output Rectifier and Filter	: Schottky Diode Rectifier with Capacitor filter
▪ Switching	: MOSFET Based
▪ Controller	: IC Based PWM controller with Fly-back
▪ Load Resistor	: Variable Resistive Load of 10KΩ
▪ Regulation type	: Line and Load Regulation
▪ Weight	: 2.0 kg (approx)
▪ Dimensions (mm)	: L 220 x W 270 x H 110
▪ Interconnections	: 2mm Banana sockets
▪ Operating Temperature	: 0-50°C, 80% RH

Learning Scope

- To Study the operation of Switching Mode Power Supply (SMPS) for Mobile Phone Circuit.
- To Observe & Note the regulated DC O/P.
- To observe & Note the time period/frequency of Switching.
- To Study Change in O/P Voltage w.r.t. change in I/P Voltage with Load RL constant (Line Regulation)
- To Study Change in O/P Voltage w.r.t change in Load RL with I/P voltage constant (Load Regulation)

Other Instruments Required :

SINCOM Digital Multi VI meter (DMVI) : Model DMVI-03 Range V₁-20V, I₁-20mA, V₂-20V, I₂-200mA DC
Digital Multimeter, Oscilloscope

Accessories Included : Set of Patch Cord and Details Instruction Manual