## imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# **PB-500**

# ANALOG CIRCUIT TRAINER

#### Applications

Use the PB-500 to construct a wide variety of experiments, including but not limited to:

- Opto-Device Circuits
- Multivibrators
- Oscillator Circuits
- Timers
- Function Generator Circuits
- Logic Circuits
- Analog-to-Digital Converters
- Digital-to-Analog Converters
- Phase Lock Loops
- Operational Amplifiers



#### **Features**

- Ideal for analog circuit design and experimentation
- Compact design for easy storage
- Includes built-in Function Generator
- Fixed quad output DC power supplies
- Built in function generator
- Premium breadboarding area with 8 power rails
- Audio experimentation speaker
- Optional courseware available
- 1-year warranty



#### **Overview**

The Model PB-500 Analog Circuit Trainer is a compact, portable analog circuit design trainer with built-in power supplies and function generator. It can be used for analog circuit design and classroom training. The PB-500's unique combination of built-in functions and uncommitted devices makes it one of the most convenient breadboarding systems available. The trainer contains all of the functions required for studying and experimenting with active filters, operational amplifiers and other analog circuitry and is powered by a UL approved wall-mount power adapter. Utilizing the PB-500, students will learn valuable handson breadboarding techniques and build a solid foundation in circuit experimentation, construction and analysis.

Experienced designers will also find the PB-500 an invaluable, capable and reliable instrument, suitable for the most advanced and demanding analog design applications.

Global Specialties trainers provide the most complete platform required to enable engineers and technicians to train for careers in the rapidly growing field of electronics technology.

> 22820 Savi Ranch Parkway Yorba Linda, CA 92887 800-572-1028 globalspecialties.com

20160104

### Specifications

Input power Source	Regulated wall mount adapter with outputs of ±12 VDC @ 200 mA, 5 VDC @ 250mA
Power Supplies	Fixed: ±12 VDC @ 200 mA ± 5% Variable: 0 to ±7.5 VDC @ 50 mA ±10%
Function Generator	<ul> <li>Frequency: Factory set to 1 kHz. Variable with use of external capacitor from 0.1 Hz to 100 kHz</li> <li>Sine Wave: 4 Vpk-pk in 10 kΩ load</li> <li>Triangle Wave: 9 Vpk-pk in 10 kΩ load</li> <li>Square Wave: 8 Vpk-pk in 10 kΩ load TTL: Logic "0" @ 0.3 V max</li> <li>TTL: Logic "1" @ 1.4 V min</li> <li>Rise and fall times: &lt;1 μs</li> <li>Duty Cycle: 50% for all waveforms</li> </ul>
Slide Potentiometers	(2) 1 kΩ & 10 kΩ
Slide Switches	(3) Single Pull Double Throw Type
Connectors	2 each BNC
Speaker	8 Ω, 0.25 W
Breadboards	840 tie points with (8) 25-pin power rails and accommodates up to 8 (14-pin) ICs
Weight	2 lb, 10 oz (includes adapter)
Dimensions	10 x 7.5 x 2.6" (254 x 190 x 66 mm)



22820 Savi Ranch Parkway Yorba Linda, CA 92887 800-572-1028 globalspecialties.com

#### Topics

The PB-500 Lab package offers comprehensive course instruction covering the following areas:

- Fundamentals of Electricity
- Ohm's Law
- Series Circuits, Parallel Circuits
- Combinational Circuits
- Current Control
- Closed, open, shorts
- Switches
- Thevenin's Theorem
- Wheatstone Bridge
- Capacitors, Inductors
- Phase Shift Circuits
- Impedance
- Resonant Circuits
- Transformers
- Rectifiers & Filtering
- Integrated Circuits
- Transistor Amplifiers
- Oscillators
- Power Control Circuits

#### **Optional Accessories**

- WK-1: Jumper Wire Kit, 350 pieces
- WK-2: Jumper Wire Kit, 140 pieces
- WK-3: Jumper Wire Kit, 70 pieces
- WK-4: Wire Jumper Kit, 100 wires with machined tips
- GSPA Series: Prototyping adapters
- GSPA-K1: Surface mount to DIP adapter kit, 6 adapter boards
- GSPA-K2: Surface mount to DIP adapter kit, 11 adapter boards
- GSA-3185: MiniPro Test Clip Setitors, Inductors



22820 Savi Ranch Parkway Yorba Linda, CA 92887 800-572-1028 globalspecialties.com