

Sciencetech 2612A Advanced Analog Circuits Development Platform is designed to fulfill requirement of performing experiments of analog electronics in a single platform. This makes it easy to design, experiment with, and test circuitry without soldering. Students can explore a wide variety of electronic concepts simply by sticking components into the breadboard. All connections and controls are clearly marked and conveniently located. It is very useful in analog electronics laboratories for performing analog experiments. It is also useful to build and test circuits as well as making projects related to analog electronics or when learning the subject.

Features

- Self contained and easy to operate
- Functional blocks indicated on board mimic
- On board DC and AC Power Supplies
- On board Function Generator
- On board Continuity Tester
- On board Toggle switches and Potentiometers
- Solderless breadboard
- On board Voltage/Current/Frequency measurement
- PC Interface
- Free e-learning course

Advanced Analog Lab comprises of following blocks :

- | | |
|----------------------|-------------------------|
| • DC Power Supplies | • AC Voltage |
| • Function Generator | • Continuity Tester |
| • Toggle Switches | • Potentiometers |
| • Voltmeter | • Ammeter |
| • PC Interface | • Frequency Measurement |

Scope of Learning

Study of:

- Diodes in DC circuits
- Light emitting diodes in DC circuits
- Half wave rectifier
- Full wave rectifier
- Zener diode as a voltage regulator
- Transistor series voltage regulator
- Transistor shunt voltage regulator
- Low pass filter
- High Pass Filter
- Band Pass Filter
- CE configuration of NPN transistor
- CB configuration of NPN transistor
- CE Amplifier Circuit
- Monostable Multivibrator using Transistor
- Bistable Multivibrator using Transistor
- Astable Multivibrator using Transistor

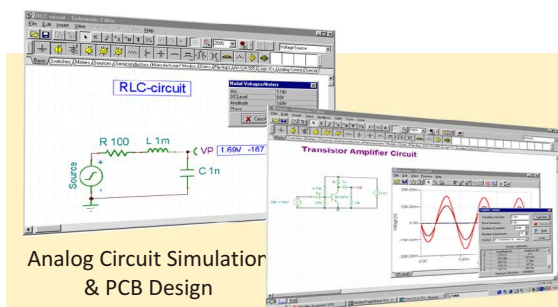
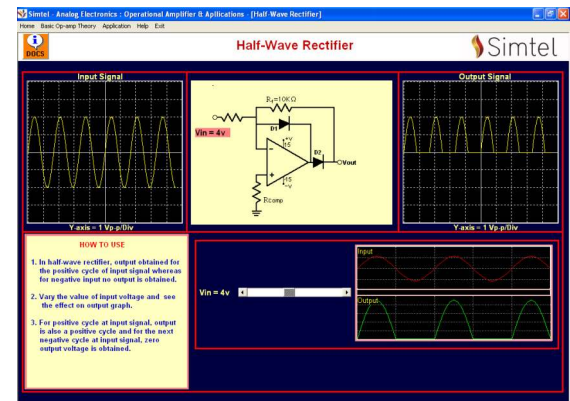
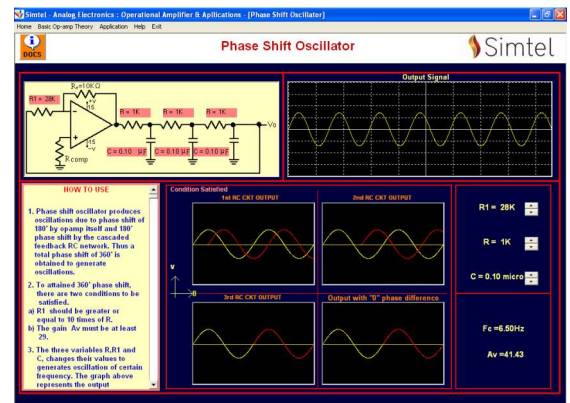
Technical Specifications

- Size of Breadboard** : 172.5 mm x 128.5mm
- Tie Points on Breadboard** : 1685 nos (solderless)
- DC Power Supplies** : +5V, 1A (fixed)
+12V, 500 mA (fixed)
-12V, 500 mA (fixed)
+12V, 500 mA (variable)
-12V, 500 mA (variable)
- AC Supply** : 9V-0V-9V, 500mA
- Function Generator** : Sine, Square, and Triangular functions
Frequency range: 1Hz to 100KHz In 5 steps (variable in between the steps)
- Voltage/Current/Frequency** : Voltage range: +12V to -12V (DC)
Measurement Current range: 0 to 500 mA (DC)
Frequency range: DC to 100KHz (all with respect to ground)
- PC Interface** : Acquisition from two analog input channels (max. input 1V)
- Continuity Tester** : For testing the continuity (provided with beeper sound)
- Mains Supply** : 110-220V $\pm 10\%$, 50/60Hz ± 3
- Weight** : 3.5 Kg approximately
- Dimensions (mm)** : W 326 x D 252 x H 52
- Product Tutorial** : Online (on www.SciencetechLearning.com)
- Included Accessories :**
- Breadboards (solderless)** : 2 nos
- Connecting wires** : 20 nos
- 2mm to 1mm patch cords** : 8 nos
- 2mm to 2mm patch cords** : 8 nos
- Mains cord** : 1 no
- Interface cable (microphone pin)** : 1 no
- Software Sciencetech 2612A** : 1 no
- Experimental boards AB Series (optional)
- Ready to use Analog Experiment Boards (covering device characteristics and study of various analog circuits) with wired components and schematic drawn on top, compatible to use with Sciencetech 2612A.



Sciencetech 2612A

Screen shots of Simtel Analog Electronics (optional)



Analog Circuit Simulation & PCB Design

Tina Design Software (optional)

Enhance your Analysis with Tina Design Suite

Analyze circuit through more than 20 different analysis modes including DC Analysis, AC Analysis, Transient Analysis, Digital step by step analysis, Symbolic Analysis, Network Analysis, Noise Analysis, Tolerance Analysis, Optimization, etc.