

## The Complete Training System With optional Ready to use Circuit boards



**2** YEARS  
WARRANTY

### Introduction

**ST2612 Analog Lab** is designed to do experimentation with analog circuits in the laboratory. It is a self contained trainer including DC regulated and AC Power Supplies, Function Generator, Modulation Generator, Continuity Tester, Potentiometers, Toggle switches, etc on as a single unit. It is very useful in project work and testing. A number of ready to use experiment circuit boards are optionally available.

### Features

- Self Contained and easy to use.
- Functional blocks indicated on board mimic.
- On board DC and AC power supply.
- On board Function and Modulation Generator.
- On board Continuity Tester.
- On board Toggle switches and Potentiometers.
- Solderless Breadboard.
- High finish Alpine wood cabinet & blue Glass epoxy PCB.
- More than 20 designed experiments for bread board.
- Read to use circuit boards (optional).

### Experiments using breadboard

1. Study of Diodes in DC circuits.
  2. Study of Light Emitting Diodes in DC circuits.
  3. Study of Half wave rectifier.
  4. Study of Full wave rectifier.
  5. Study of Zener Diode as a voltage regulator.
  6. Study of transistor series voltage regulator.
  7. Study of transistor shunt voltage regulator.
  8. Study of Low pass filter.
  9. Study of High pass filter.
  10. Study of Band pass filter.
  11. Study of CE configuration of NPN transistor.
  12. Study of CB configuration of NPN transistor.
  13. Study of CE amplifier circuit.
  14. Study of Monostable multivibrator using transistor.
  15. Study of Bistable multivibrator using transistor.
  16. Study of Astable multivibrator using transistor.
- ..... and many more.

### Technical Specifications:

**Regulated DC Power Supplies (using low loss R core transformer) :** + 5V-1 A (Fixed), +12V-500 mA(Fixed), -12 V-500 mA (Fixed), +12V-500 mA (Variable), -12 V-500 mA (Variable)

**AC Supply :** 9V-0V-9V/500mA.

**Breadboard :** Breadboard for making various circuits and testing them. External components/ IC can be fitted conveniently. All components and breadboard are mounted on Glass epoxy PCB. Interconnection through Detachable flat ribbon cables. All rotary switches with DAP material.

**Function generator :** Operating modes: Sine, Square, Triangular  
Frequency range 1 Hz to 100 KHz

**Modulation /Audio generator :** Operating modes: Sine, Square, Triangular  
Frequency range 1 Hz to 10 KHz

**Continuity tester :** For testing the continuity. Provided with Beeper Sound.

**Interconnection for Modules :** 2 mm patch cords.

**Power Requirements :** 230V+/- 10%, 50 Hz

**Dimensions (mm) :** W450, H113, D280

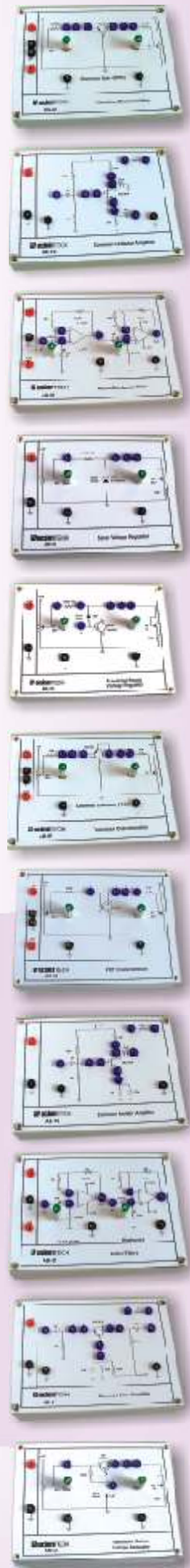
**Weight :** 3.5 Kgs (approx)

**Accessories Included :** Mains cord, Operating and Experimental Manual (with more than 20 designed experiments.) patch cords.

**Optional :** Ready to use Experiment Boards (covering device characteristics and study of various circuits) with wired components and circuit schematic drawn on top. Compatible to use with Analog Lab ST2612, Circuit design & test software Tina Pro,Component set.

### Ready to use Circuit boards (Optional)

- 1) Transistor characteristics CB (NPN)
  - 2) Transistor characteristics CB (PNP)
  - 3) Transistor characteristics CE (NPN)
  - 4) Transistor characteristics CE (PNP)
  - 5) Transistor characteristics CC (NPN)
  - 6) Transistor characteristics CC (PNP)
  - 7) FET characteristics
  - 8) Common emitter amplifier
  - 9) Common collector amplifier
  - 10) Common base amplifier
  - 11) Zener voltage regulator
  - 12) Transistor series voltage regulator
  - 13) Transistor shunt voltage regulator
  - 14) Active filters
  - 15) Active band pass filter
  - 16) Thevenin's and maximum power transfer theorem.
  - 17) Reciprocity and superposition theorem.
  - 18) RC phase shift oscillator
  - 19) Wien bridge oscillator
  - 19) Colpitts oscillator
  - 20) Diode characteristics (LED, zener, silicon)
  - 21) Kirchoff's current law, Kirchoff's voltage law
- .....and more



Subject to change

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