

**AL7212 – Analog Electronics Lab****Key Features:**

- 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
- 22 Ready to use circuit boards designed experiments for breadboard

The AL7212 is designed for experimentation with analogue circuits in the laboratory. The AL7212 is a self-contained trainer which includes a DC regulated and AC power supplies, function generator, modulation generator, continuity tester, potentiometers and toggle switches. The unit is supplied with a breadboard to help students experiment with test circuitry using various components without having to solder. A number of ready to use experiment circuit boards are provided.

**Experiments**

- Silicon, Zener, LED Diode Characteristics
- Common Base NPN and PNP Transistor Characteristics
- Common Emitter NPN and PNP Transistor Characteristics
- Common Collector NPN and PNP Transistor Characteristics
- N-Channel FET Characteristics
- Common Emitter Amplifier
- Common Collector Amplifier
- Common Base Amplifier
- Zener Voltage Regulator
- Transistor Series Voltage Regulator
- Transistor Shunt Voltage Regulator
- Low Pass - High Pass Active Filters
- Active Band Pass Filter
- Phase Shift Oscillator
- Wien Bridge Oscillator
- Colpitt Oscillator
- Kirchoff's Laws (KCL and KVL)
- Thévenin's Theorem, Maximum Power Transfer Theorem
- Reciprocity Theorem, Superposition Theorem

## Specification

Power Supply Requirements	
Regulated DC Power Supply	+ 5V-1 A (Fixed), +12V-500 mA(Fixed), -12 V-500 mA (Fixed), +12V-500 mA (Variable), -12V-500 mA (Variable)
AC Supply	9V-0V-9V/500mA.
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 with an audible indicator.
Breadboard	172.5 mm x 128.5 mm
Dimensions	W326, H52, D252
Weight	3.5 Kgs (approx)
Power	110-220V+/- 10%, 50/60 Hz

## Experiment Boards

Ready to use Circuit Boards	<ol style="list-style-type: none"><li>1. Transistor characteristics Common Base (NPN)</li><li>2. Transistor characteristics Common Base (PNP)</li><li>3. Transistor characteristics Common Emitter (NPN)</li><li>4. Transistor characteristics Common Emitter (PNP)</li><li>5. Transistor characteristics Common Collector (NPN)</li><li>6. Transistor characteristics Common Collector (PNP)</li><li>7. FET characteristics</li><li>8. Common emitter amplifier</li><li>9. Common collector amplifier</li><li>10. Common base amplifier</li><li>11. Zener voltage regulator</li><li>12. Transistor series voltage regulator</li><li>13. Transistor shunt voltage regulator</li><li>14. Active filters</li><li>15. Active band pass filter</li><li>16. Thevenin's and maximum power transfer theorem</li><li>17. Reciprocity and superposition theorem</li><li>18. RC phase shift oscillator</li><li>19. Wien bridge oscillator</li><li>20. Colpitts oscillator</li><li>21. Diode characteristics (LED, Zener, silicon)</li><li>22. Kirchoff's current law, Kirchoff's voltage law</li></ol>
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## Ordering Information

<b>Model Number:</b>	<b>AL7212</b>
<i>Consists of:</i>	AL7212 Base Board Manual Patch Cables 22 x Experiment Boards including Experimental Manuals

### Notes.

1. *Specification is subject to change without notice.*
2. *All dimensions are in mm unless otherwise stated*

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