



36328 An Operational Amplifier, usually referred to as an 'Op-Amp.' For brevity, Op-Amps are among the most widely used electronic devices today, being utilized in a vast array of consumer, industrial and scientific devices. In present days electronics system a basic building block is the operational amplifier. The Operational amplifier is a versatile device that can be used to amplify DC input signal as well as AC input signal and used for computing mathematical function such as addition, subtraction, multiplication, integration and differentiation, and due to the ability to program these operations the name operational Amplifier stems.

36328, Op-Amp. Application platform student can study the basic mathematical operations addition, Subtraction, Integration, Differentiation, Rectification, Oscillation, Filtering, peak detection, comparison, and so on. However, an ideal operational amplifier is an extremely versatile circuit element, with a great many applications beyond mathematical operations and to understand and perform those application it is necessary to achieve better understanding of its basic application.

36328 has been divided into different independent blocks for the ease of user to understand the various application of operational amplifier. A function generator, generating Sine wave, Square wave and triangular wave, and variable DC supplies are provided on board.

Object

- 01 Study and observe Op-Amp as voltage Computer
- 02 Study and observe Op-Amp as Zero crossing Detector
- 03 Study and observe Op-Amp as a phase shift oscillator and its phase shift at every R C Combination.
- 04 Study and observe Op-Amp as a function generator, generating square and triangle wave
- 05 Study and observe Op-Amp as a half wave

Note: Specifications are subject to change.

Tesca Technologies Pvt. Ltd.

IT-2013, Ramchandrapura Industrial Area, Sitapura Extension,
Near Bombay Hospital, Vidhani Circle, Jaipur-302022, Rajasthan, India,
Tel: +91-141-2771791 / 2771792; Email: info@tesca.in, tesca.technologies@gmail.com
Website: www.tesca.in

- 06 precision rectifier
- 06 Study and observe Op-Amp as active second order high pass filter
- 07 Study and observe Op-Amp as a when bridge oscillator and its agin factor for a smooth sine wave
- 08 Examine the operation of colpits oscillator
- 09 Examine the operation of hartley oscillator

Feature

- 01 Self contained easy to operate platform
- 02 On board function generator
- 03 Variable power supply
- 04 Functional blocks indicated on board mimic
- 05 Built in power supply
- 06 Operating manual provided
- 07 Compact size

Technical Specification

The board consists of the following built in parts

- | | |
|-------------------------|---|
| function generator | |
| 01 Sine wave | : 1Hz -110KHz (10VPP) |
| 02 Square wave | : 1Hz -110KHz (10VPP) |
| 03 Triangle wave | : 1Hz -110KHz (8VPP) |
| 04 Pulse wav | : 1Hz -110KHz (8VPP) |
| 05 Power supplies | : 0-30V (variable) |
| 06 Power supplies | : $\pm 5, 9, 12, 15V$ at 100mA |
| 07 Decade capacitor box | : 0.1uF and 1uF per step tota step 20 |
| 08 Decade capacitor box | : 0.1mH and 1mH per step total step 20 |
| 09 Experiment | : Nine individual circuits having Op-Amp, resistance, capacitor, diodes, pot & ect... |
| 10 Test points | : 28 |
| 11 Power supply | : 230V $\pm 10\%$, 50Hz |
| 12 Power consumption | : 4 VA approximately |
| 13 Operating conditions | : 0-40C, 85% RH |
| 14 Learning material | : Theory, procedure, Reference results, etc. |
| 15 Dimensions (mm) | : W415 x H165 x D315 |
| 16 Weight | : 4 Kg approximately |

List of Experiment

- 01 Patch cord 4mm length 50cm Red & Black...06