

OMEGA TYPE ACT-15 The Analog Computer Trainer is a totally solid state electronic device designed to teach the basics of analog computation and to solved various differential equations to engineering & science students. Using this trainer board, students can study the various building blocks used in the analog computation like summing amplifiers, integrating amplifiers, inverting amplifiers & coefficient multipliers. Using this trainer board the students can solve linear equations, simultaneous equations & differential equations with constant coefficients.

OBJECTS

- 01 To study building blocks.
 - 1.1 To study summing amplifier (Adder)
 - 1.2 To study the inverting amplifier
 - 1.3 To study difference amplifier (Sub tractor)
 - 1.4 To study summing & difference amplifier (Adder & Sub tractor)
 - 1.5 To study integrating amplifier.
 - 1.6 To study summing integrating amplifier
- 02 To study analog computer
 - 2.1 To solve linear equations
 - 2.2 To solve simultaneous linear equations
 - 2.3 To solve linear differential equations
 - 2.4 To solve simultaneous differential equations with constant coefficient.

SPECIFICATIONS

- | | |
|--------------------------------------|---|
| 01 No. of summing amplifier | : 5 |
| 02 No. of Inverting amplifier | : 5 |
| 03 No. of coefficient multipliers | : 10 |
| 04 No. of Integrating amplifier | : 5 |
| 05 Output voltage swing | : $\pm 12V$ |
| 06 Input impedance of each amplifier | : 1M |
| 07 Power supply | : 3 nos. |
| 09 Modes of operation | : HOLD,
COMPUTE, RESET, GRAPH PLOT &
REPETITIVE |

FEATURES

- 01 FET input Op-Amp. are used.
- 02 In built power supply
- 03 Detachable patch board is provided therefore computer may be programmed to solve many kinds of problems.



- 04 Variable reference voltage controlled by helical potentiometer.
- 05 Digital voltmeter is provided to set coefficient multiplier and to measure output voltage.
- 06 Time scaling switch to vary the time constant of integrator
- 07 Mode selection switch to select mode of operation
- 08 Facility to set initial condition to any desire value.
- 09 The unit is operative on 230V $\pm 10\%$ at 50Hz A.C. Mains.
- 10 Adequate no. of patch cords stackable from rear both ends 4 mm spring loaded plug length $\frac{1}{2}$ metre.
- 11 Good Quality, reliable terminal/sockets are provided at appropriate places on panel for connections & observation of waveforms.
- 12 Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.
- 13 Weight : 9.0 Kg. (Approx.)
- 14 Dimension : W 445 x H 260 x D 470

OTHER APPARATUS REQUIRED:

- 01 Dual trace CRO OMEGA TYPE CRO-20

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

OMEGA ELECTRONICS