

OMEGA TYPE ETB-85 Experimental Training Board has been designed specifically for the study of ten popular and most useful Linear Integrated Circuits (ICs). The capabilities of this trainer extend far beyond the experiments described. Although only a finite number of experiments have been described yet other circuits as per individuals requirements can also be designed using the available components and power supplies. Practical experience on this board carries great educative value for Science and Engineering Students.

OBJECT

OP-AMP IC 741

The following experiments can be performed :

- 01 To measure the quiescent supply current
- 02 To null the offset voltage
- 03 To measure open-loop voltage gain under closed loop condition.
- 04 To measure output resistance
- 05 To measure differential input resistance
- 06 To measure unity gain bandwidth
- 07 To measure the rated output
- 08 To measure the slewing rate
- 09 To measure the full power response
- 10 To measure input offset voltage
- 11 To measure input bias and offset current
- 12 To measure input noise voltage
- 13 To measure input noise current
- 14 To measure Common Mode Rejection Ratio (CMRR)
- 15 To measure Common Mode Input Resistance (CMIR)
- 16 Application as Inverting amplifier
- 17 Application as Non-inverting amplifier
- 18 Application as difference amplifier
- 19 Application as Inverting summing amplifier
- 20 Application as Non-inverting summing amplifier
- 21 Application as D.C. Voltage follower
- 22 Application as A.C. Voltage follower
- 23 Application as differentiator
- 24 Application as Integrator
- 25 Application as semi Log-amplifier
- 26 Application as unipolar limiter
- 27 Application as bipolar limiter
- 28 Application as positive peak clipper
- 29 Application as negative peak clipper
- 30 Application as AC-DC converter
- 31 Application as High Pass Filter
- 32 Application as Low Pass Filter
- 33 Application as Triangle to Sine Wave Converter
- 34 Application as 500Hz-5KHz Square Wave Generator
- 35 Application as Wien-Bridge Oscillator
- 36 Application as Pulse Generator



37 Application as linear to log potentiometer

38 Application as random noise generator

FET INPUT OP-AMP IC CA 3130

The following experiments can be performed :

- 39 Application as high input impedance voltage follower
- 40 Application as pulse generator with independent control of ON and OFF periods
- 41 Application as active full wave rectifier without using diodes

HIGH SPEED COMPARATOR IC 710

The following experiments can be performed :

- 42 To measure open loop voltage gain under closed loop condition
- 43 To measure output resistance
- 44 To measure differential input resistance
- 45 To measure unity gain bandwidth
- 46 To measure the rated output
- 47 To measure the slewing rate
- 48 To measure the full power response
- 49 To measure input offset voltage
- 50 To measure input bias and offset current
- 51 To measure input noise voltage
- 52 To measure input noise current
- 53 To measure Common Mode Rejection Ration (CMMR)
- 54 To measure Common Mode Input Resistance (CMIR)
- 55 Application as a comparator
- 56 Application as a pulse width modulator
- 57 Application as a level detector
- 58 Application as Schmitt Trigger

Continue...

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