



36402 To study of board has been designed specifically for to analyze complex wave (square, sine wave triangular wave etc.) to verify the existence of different harmonics and measure their relative amplitudes.

The board is absolutely self-contained and requires no other apparatus.

Practical experience on this board carries great educative value for Science and Engineering Students.

Object

01 To analyze complex wave (square, sine wave triangular wave etc.) to verify the existence of different harmonics and measure their relative amplitudes.

Features

The board consists of the following built-in parts: In electronics, we come across complex signals. They consist of pure sine and cosine waves. The mathematical tool that helps us in the analysis of complex signals is called the Fourier Theorem. According to this theorem, a square wave consists of the fundamental and other odd harmonics. Similarly, a sine wave consists of the fundamental and other even harmonics. Typical results obtained with the kit are shown below:

Instrument

The Kit consists of a stabilized power supply $\pm 15V$ a function generator and the analyzer. Square,

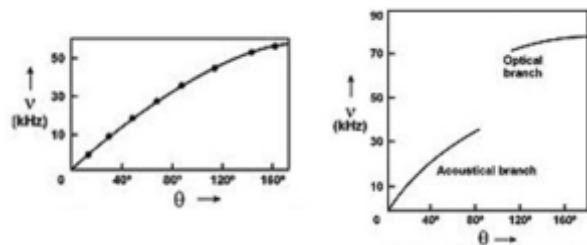
triangular and clipped sine waveforms are generated by a specially designed integrated circuit function generator whose output frequency can be varied in the range of 1 KHz to 10 KHz using the 1K Ω Ten Turn potentiometer. The output level of the sine and triangular waves can be varied using the amplitude control provided on the front panel of the unit.

The only equipment needed for the experiment is any general purpose CRO / DSO available in laboratory.

- 01 Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.
- 02 Weight: 1.800 Kg. (Approx.)
- 03 Dimension: W 340 x H 125 x D 210

Other Apparatus Required

- 01 Digital Storage Oscilloscope (DSO)



Note: Specifications are subject to change.

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