

## TLA-03: AMPLITUDE DEMODULATION

This module allows the student to understand the functioning and operation of Amplitude Demodulation using two stage Intermediate Frequency Amplifier and Diode Envelop Detector. This module also includes the study of AGC, Mixer with dual tuned LC.

The detailed instruction manual explains the complete working of each of the individual sections at the circuit level.



### Features :

- Frequency Converter
- 2 stage selective amplifier
- AM-Diode Detector
- Automatic Gain Control

### Technical Specifications :

#### Frequency Converter (Mixer)

- Dual-Gate MOSFET used to mix up RF & Lo frequency. Inputs : Local Oscillator and Signal
- Output Intermediate Frequency : 455 KHz Adjustable
- FI Filter : Dual Tuned LC

#### 1st & 2nd stage IF Amplifier

- Central Frequency : 455 KHz Adjustable
- Load Impedance : Variable R-L-C
- Gain : 34 db
- Impedance Matching with Transformer & Autotransformer

#### Diode envelop detector

- Detecting of the positive or negative envelop with variable R-C Filter

#### Automatic Gain Control

- Output can be controlled in case of maximum input signal

**Interconnection :** 2mm banana

**Power Supply :**  $\pm 12V$