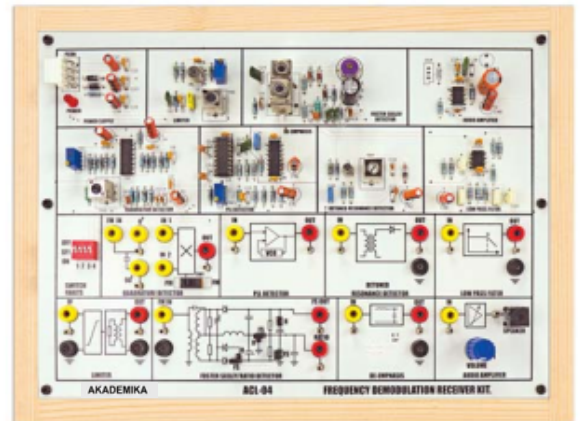


ACL-FD

Frequency Demodulation Receiver Kit



FEATURES

- Dedicated Frequency Demodulation Receiver Trainer for practical study of FM reception.
- Includes complete FM receiver and demodulation stages on a single trainer board.
- Built-in limiter and discriminator/demodulator sections.
- These are the key FM demodulation methods provided on the board :
Quadrature Detector
PLL Detector
Foster-Seeley Discriminator
Detuned Resonance Detector
- Multiple test points are provided for observing signals at different stages.
- Includes fault-switch provisions for troubleshooting and fault-analysis exercises.
- Mobile based interactive e-manual

SPECIFICATIONS

Foster-seely detector

- Operating frequency : Adjustable from 400 KHz ~ 500 KHz
- Input amplitude : 1Vpp

Ratio discriminator detector

- Operating frequency : Adjustable from 400 KHz ~ 500 KHz
- Input amplitude : 1Vpp

Phase lock loop detector

- Operating frequency : Adjustable from 400 KHz ~ 500 KHz
- Input amplitude : 1Vpp

Phase detector and FM quadrature detector

- Operating frequency : Adjustable from 400 KHz ~ 500 KHz
- Input amplitude : 1Vpp

Amplitude limiter

- Operating frequency : 455 KHz
- Input amplitude : 0.5 ~ 5 Vpp
- Output limited amplitude : 1.5 Vpp

Low pass filter

- 4th order butterworth filter
- Cut-Off frequency : 3.4 KHz

Audio output

- Amplifier with speaker
- Audio amplifier gain : 20dB

Switch faults

- 4 switch faults are provided on board to study different effects on circuit

Interconnection

- 2 mm banana socket

Test points

- 29 test points are provided on board to observe intermediate signals

Power supply

- GND, +5V, +12V, -12V

EXPERIMENTS

- Study of FM demodulators - Foster seeley detector - Ratio detector - Phase locked loop detector - Quadrature detector
- Study of phase demodulator
- Voice reception on various demodulation methods
- Switch faults