

FM Transmitter and Receiver Trainer has been designed with a view to provide practical and experimental knowledge of Frequency Modulation / Demodulation technique as practically implemented in Analog Communication system on a SINGLE P.C.B. of size 300x400mm.



1. Object:

To Study Theory of Frequency Modulation & Demodulation:

01. Frequency Modulation via varactor / reactance Modulation.
02. Frequency Demodulation via Detuned Resonant / Ratio / Quadrature / Foster - Seeley / Phase locked loop detector.
03. Separate VCO circuit to demonstrate FM waveform.

2. Feature:

The board consists of the following built-in parts:

01. POWER SUPPLY : ± 12 DC IC Regulated power supply.
02. FM Modulating signal generator : Sine wave
Frequency Range : 300 Hz to 3.4 KHz
Amplitude Range : 0 to 5 Vpp.
03. Modulator Type : Varactor modulator (With carrier frequency adjustment)
: Reactance Modulator (With carrier frequency adjustment)
04. Demodulator : Detuned resonant detector.
: Quadrature detector
: Foster - Seeley Detector
: Ratio Detector
: Phase locked loop Detector
05. Mixer/Amplifier : 1 No. (With gain adjustment) Allows FM input signal to be amplitude modulated by a noise input to demodulation.
06. Low pass Filter : 3.4 KHz. Cut of frequency Amplifier (with adjustable gain)
07. VCO Circuit : FM Wave form demonstrate
08. Test Point : 78
09. Power supply requirement : 230V AC, 50 Hz.
10. On Board Switched Faults : 8 Nos.
11. On Board Amplitude limiter with Amplitude control.
12. Input - Output and Test points provided on board.
13. A self contained Trainer.
14. Effect of noise on the detection of FM signal may be investigated.
 - Good Quality, reliable terminal/sockets are provided at appropriate places on panel for connections/ observation of waveforms.
 - Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.
 - Weight : 6 Kg. (Approx.)
 - Dimension : W 412 x H 150 x D 310

Other Apparatus Required:

- Cathode Ray Oscilloscope 20MHz.
- Patch Cords

Note: Specifications are subject to change.

Tesca Technologies Pvt. Ltd.

IT-2013, Ramchandrapura Industrial Area, Sitapura Extension,
Near Bombay Hospital, Vidhani Circle, Jaipur-302022, Rajasthan, India,
Tel: +91-141-2771791 / 2771792; Email: info@tesca.in, tesca.technologies@gmail.com
Website: www.tesca.in