



Sciencetech 2204 Study of FM Communication is a comprehensive learning solution specifically designed to provide conceptual and step by step understanding of Frequency Modulation and Demodulation techniques through observation of waveforms at various test points and measurement of parameters like Frequency deviation and Modulation index. Block wise modular organization of functional circuits with symbolic representation makes it easy to understand the process of FM generation, FM detection and study of FM Spectrum. The exercises provide a practical approach to the subject and will guide the students to understand each function.

Features

- A self contained platform on FM Communication
- Functional blocks with symbols indicated on mimic
- Onboard adjustable controls for various functional blocks
- Compact size
- Online Product Tutorial

Scope of Learning

Study of:

- Observation of Frequency Modulation
- Calculation of Frequency deviation and Modulation index
- Phase Locked Loop detector
- Quadrature detector
- Foster-Seeley and Ratio detector
- Marker insertion to evaluate frequency deviation
- Spectrum of FM signal

Technical Specifications

Function Generator

Waveform	:	Sine wave
Amplitude	:	Adjustable from 0 - 4Vpp
Frequency	:	0.1 to 10 KHz

VCO 1:

Waveform	:	Sine wave
Frequency	:	400 KHz to 1500 KHz
Amplitude	:	Adjustable from 0-2Vpp

VCO 2:

Waveform	:	Sine wave
Frequency	:	400 KHz to 1500 KHz
Amplitude	:	Adjustable from 0- 2Vpp

Sweep Depth : Frequency 7 Hz (Adjustable-Depth)

RF Detector : Input level adjustable

Balanced Modulator : Adjustable amplitude & carrier null

Ceramic Band Pass Filter : Center frequency 455 KHz

Bandwidth : 3 ±1 KHz

FM Detectors : Phase Locked Loop detector
 Quadrature detector
 Foster-Seely and Ratio detector

Interconnections : 2mm banana sockets

Test Points : 8 nos.

Weight : 2.5 Kg approximately

Power Supply : 230 V ±10%, 50 / 60 Hz

Power Consumption : 2.5 VA approximately

Operating Conditions : 0-40°C, 80% RH

Dimensions (mm) : W 340 x D 240 x H 100

Included Accessories:

Patch cord 16" : 8 nos.

Mains cord : 1 no

Product Tutorial on www.SciencetechLearning.com - 1 no.