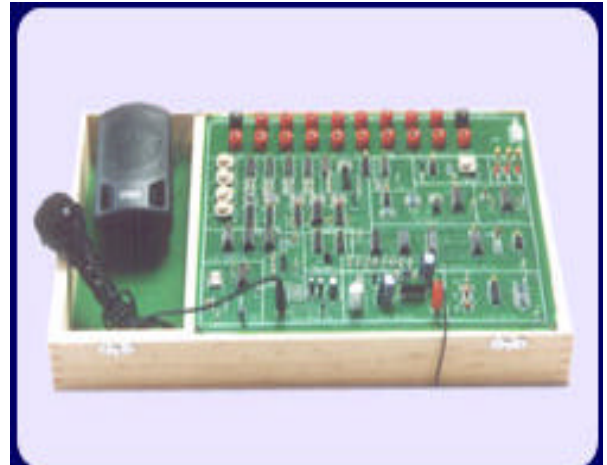


TLD-08: PULSE AMPLITUDE MODULATION / PULSE WIDTH MODULATION PULSE POSITION - MODULATION TRAINER -

This module provides facility to students for experimentation in the area of Pulse Modulation Techniques such as Pulse Amplitude Modulation (PAM), Pulse Width Modulation (PWM) and Pulse Position Modulation (PPM). It provides the students a facility to examine Sampling Modulation, Demodulation and Signal Reconstruction. An exhaustive manual has been provided with the system which provides detailed experimental procedure and complete circuit diagram of the systems.



Features :

- All type of Modulation & Demodulation techniques using natural & flat top sampling
- Pulse Amplitude Modulation
- Pulse Width Modulation
- Pulse Position Modulation
- Analog sampled outputs & sampled 'hold' outputs.
- Selectable four different Sampling frequency from on-board Pulse Generator.
- Four different on-board sinewave generator.
- Voice Communication using dynamic mic and speaker.
- 4th order Butterworth filter
- Various test/monitoring points provided in-board

Technical Specifications :

- Pulse Modulation Techniques :: Pulse Amplitude Modulation, Pulse Width Modulation, Position Modulation
- On board Sampling
- Frequency : 4KHz, 8KHz, 16KHz, 32KHz
- On board Sine Wave Generator : 250KHz, 500KHz, 1KHz, 2KHz (Variable amplitude V_{pp})
- Voice communication : using dynamic mike and speaker.
- Low Pass Filter Type : 4th Order Butter worth Filter
- Cut-Off Frequency: 3.4 KHz
- Interconnection: 4 mm standard banana socket
- Power Supply +5V, +/-12V
- Cut-Off Frequency

List of Experiments :

- Study of Pulse Amplitude Modulation and Demodulation using natural Sampling
- Study of Pulse Amplitude Modulation and Demodulation using flat top sampling
- Study of Pulse Width Modulation and Demodulation using natural sampling and top sampling
- Study of Pulse Position Modulation and Demodulation using natural sampling
- Study of Voice Communication Using PAM and PWM Techniques.