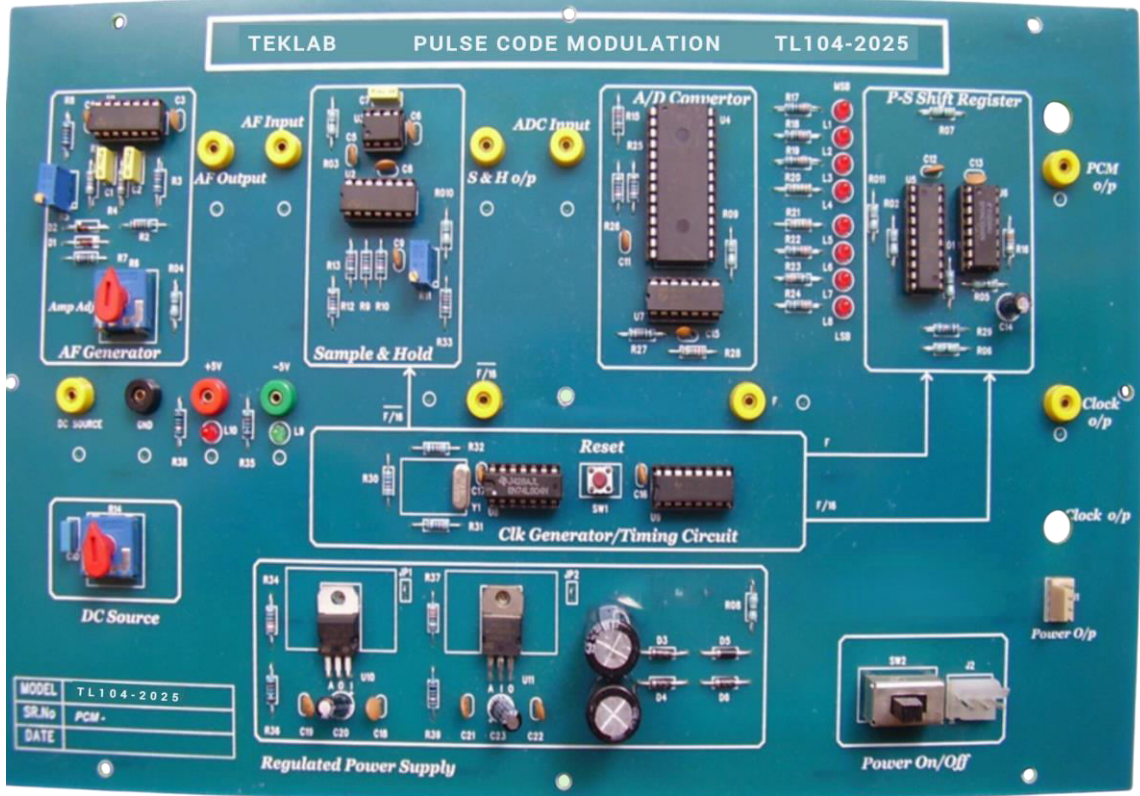


Introducing **PULSE CODE MODULATION & DEMODULATION KIT** by **TEKLAB INDIA SOLUTIONS**.

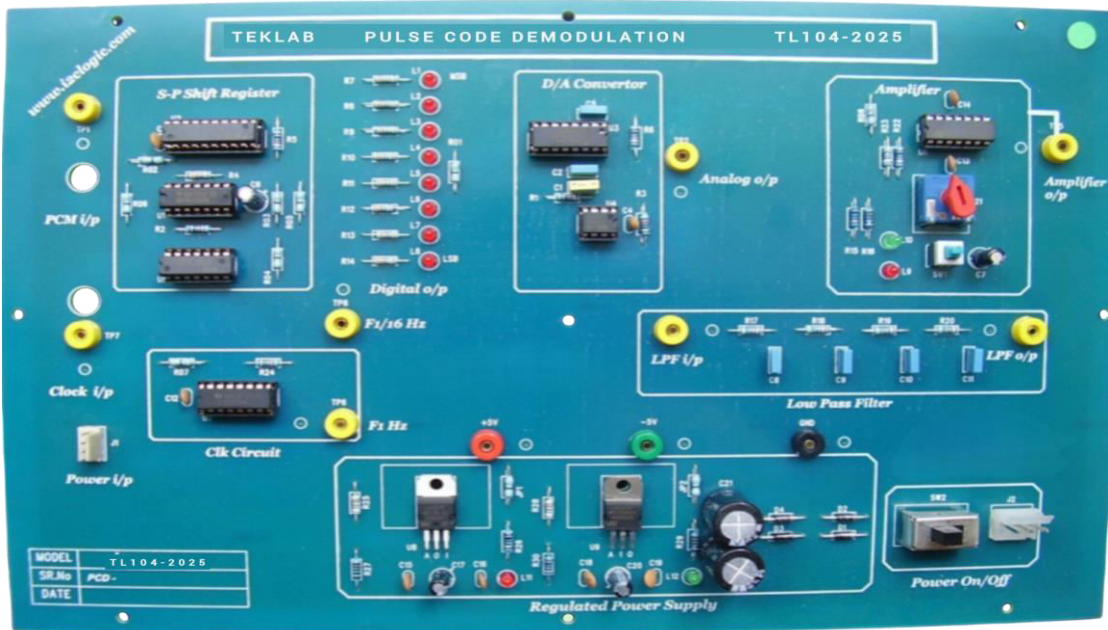
1.MODULATOR



TECHNICAL SPECIFICATIONS

Regulated power supply	On board power supply of +5V and -5V are provided.
Sine Wave Generator	Provides Sine wave output using TL084. Provides Sine Wave output of 384 Hz and Max. 7V p-p. Provision for Amplitude adjustments provided using Top Rotor.
DC Source input	Also provides DC Source input with Amplitude adjustments.
Clock Generator	Clock generator using 4 MHz Crystal Oscillator. Frequency Divider using IC 4060.
On-board Block Features	Sample & Hold circuit using IC 398. PCM-Modulator circuit using IC ADC0808/0809. Digital data output with RED LED indication. Parallel-Serial Conversion using IC 74373 and IC 74166.

2.DEMODULATOR



TECHNICAL SPECIFICATIONS

Regulated power supply	On board power supply of +5V and -5V are provided.
Clock generator	Frequency Divider using IC 4060
On-board Block Features	Serial-Parallel Conversion using IC 74373 and IC 74164 PCM-Demodulator using IC DAC0800 and IC 741. Amplifier circuit using IC TL084. In Amplifier section, AC/DC output with RED and GREEN LED indication.
Interconnections	All interconnections are made using 2mm banana Patch cords
Interface to Demodulator	Provides two Co-axial Cables and 4 Pin Connector. Test points are provided to analyze signals at various points. Bare board Tested Glass Epoxy SMOBC PCB is used. In-Built Power Supply of $\pm 5V/350mA$ with RED (+5V) & GREEN (-5V) LED Power ON indication. Attractive Wooden enclosures of Light weight Australian Pine Wood. Set of 2mm Patch cords for interconnections. User's Manual Hard copy.

LIST OF EXPERIMENTS

- To study the AF signal Generation using Wien-Bridge Oscillator.
- To study the Sample and Hold circuit.
- To study the principles of Analog to Digital and Digital to Analog Conversion.
- To study the Sable RC Oscillator and Crystal Oscillator circuit.
- To study the Parallel-Serial and Serial-Parallel conversion using shift registers.
- To study the wired transmission through Co-axial cables.
- To study the synchronization between transmission and reception digital bits.