



The trainer provides all necessary inputs and connection for students to study decoding and demultiplexing of data transmitted by PCM transmitter. On-Board PLL provides regeneration of Clock. Synchronization between transmitter and receiver is provided by Pseudo random code.

Technical Specifications

Input Channel : Time Division Multiplexed Serial Input

Demodulation : Pulse code Demodulation

Clock Regeneration : By phase Locked loop

Operating Speeds : Fast - 320 KHz/Channel, Slow 1.9 Hz / Channel

Error Detection (Single bit) : Off-Odd- Even parity & Hamming code

Error Correction : Hamming code

PC- PC communication : using 2 channels via RS232

Port : 9 pin D type connector - 2 Nos.

Baud rate : Selectable from 300 to 2400

Test Points : 50

Interconnections : 2 mm sockets

Power Supply : 220 V \pm 10%, 50Hz/ 60 Hz on request

Power Consumption : 4 VA (approx.)

Dimensions (mm) : W 340 \times D 240 \times H 105

Weight : 1.3 Kg (approx.)

- ▣ Input accepts two channel multiplexed data
- ▣ On board De-multiplexed PCM Receiver
- ▣ On board L. P. Filter
- ▣ Fast & Slow modes for real time operation and data flow examination
- ▣ On board PLL for clock regeneration
- ▣ On board sync code detector
- ▣ Error + check code options
- ▣ Odd or Even Parity-Single bit error detection
- ▣ Hamming code single bit error detection and correction
- ▣ 4 Switched faults allow different error check code option
- ▣ PC - PC Communication via RS232 interface

Experiments that can be performed

- PCM Demodulation Technique
- Time Division Demultiplexing of PCM data
- Clock Regeneration by PLL
- Effect of induced faults in the transmitter & receiver
- Signal recovery in 3 connecting modes between transmitter & receiver
- Clock & Frame Synchronization in PCM system
- PC - PC communication in 3 modes

