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### **Product Name:**

**TDM Pulse Code Demodulation Trainer** 

## **Product Code:**

NLAB-ELECTRONICSAB160018



# **Description:**

**TDM Pulse Code Demodulation Trainer** 

# **Technical Specification:**

Digital Communication Trainer System to under stand various digital Modulation and Demodulation Techniques. Various functional block diagrams are provided on-board for Teaching/Training. This Kits provides with various Test Points to visualize the signals on Oscilloscopes.

# **FEATURES**

Single Channel Serial Input.

Pulse Code Demodulation.

On-board 4th order Butter-worth Low pass filter with cut off frequency of 3.4khz

On - board PLL Technique for regeneration.

Error Check code option (None, Even, Odd, Hamming)

None, Even, Odd, Hamming Parity selections.

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Pseudo random sync. code generation.

In-Built Power Supply

### LIST OF EXPERIMENTS:

Study of Pulse Code Modulation.

Study of Error Check Code Logic: None Parity Coding. Odd Parity Coding. Even Parity Coding. -Hamming Coding.

Study of Synchronization techniques using PLL.

Study of effect of faults in Modulation & Demodulation Techniques.

### SPECIFICATIONS:

Input Channels: 2 Channel Time Division Multiplexed Pulse Code Modulation Receiver.

Mode of Operation: Fast (240 KHz/Channel approx): Slow (1Hz. /channel approx.)

On-board features : Pseudo random sync. Code generator for FRAME Synchronization. : Receiver clock generation using PLL.

Error Detection of None, Even, Odd, Hamming.

Error Correction using Hamming Code technique None, Even, Odd, Hamming Parity selections: Two Nos. of 4th order Butterworth Low pass filter with cut off frequency of 3.4 Khz.: Four Switched Faults for Fault Selection: Block Description Screen printed on glassy epoxy PCB

Interconnections: All interconnections are made using 2mm banana Patch cords.

Test points are provided to analyze signals at various points.

All ICS are mounted on IC Sockets.

Bare board Tested Glass Epoxy SMOBC PCB is used.

In-Built Power Supply of +5V/1.5A, ±12V/250mA with Power ON indication

Attractive enclosure

Set of 2mm Patch cords for interconnections.

User's Manual with sample experiments programs.

315mm x 245mm x 105mm (L x W x H).

Weight 3 Kgs.

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# Naugralabequipments

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