

**Product Name :**  
Data Conditioning Trainer

**Product Code :**  
NLAB-ELECTRONICSAB160016



**Description :**

Data Conditioning 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:**

On-board 1MHz (0°), 1MHz(180°), 2MHz(0°) Carrier Generator.

On-board Clock and Coding data

Data format of NRZ-L, NRZ-M, NRZ-S, URZ, AMI, BIO-L, BIO-M, BIO-S. ASK, PSK, FSK Modulator.

On-board Unipolar to Bipolar and Bipolar to Unipolar conversion.

In-Built Power Supply

#### LIST OF EXPERIMENTS:

Study of Data Coding and Decoding Techniques for Nonreturn to Zero Format.

Study of Data Coding and Decoding Techniques for Phase Encoded Format.

Study of Data Coding and Decoding Techniques for Return to Zero Format and Multilevel binary format.

Study of Amplitude Shift Keying Modulation Techniques.

Study of Frequency Shift Keying Modulation Techniques.

Study of Phase Shift Keying Modulation Techniques.

#### SPECIFICATIONS:

Carrier Generator

Provides Carrier Sine wave output of 1MHz (0°), 1MHz(180°), 2MHz(0°) .

Amplitude of 0 - 4Vp-p

On-board 8 bit Data Generator for simulation of data

On-board features

Carrier Modulation using ASK, PSK, FSK

Data formats of NRZ-L, NRZ-M, NRZ-S, URZ, Bi-phase-L,Bi-phase-M, Bi-phase-S, AMI.

On board Carrier Modulation.

On-board Data Simulator.

On-board Uni-polar to Bipolar conversion

On-board Bipolar to Uni-polar conversion

Block Description Screen printed on glassyepoxy PCB

Modulation Techniques

ASK, FSK, PSK Modulation

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,  $\pm 12\text{V}/250\text{mA}$  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.

## Naugralabequipments

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