

**Product Name :**  
BPSK DEPSK DPSK Trainer

**Product Code :**  
NLAB-ELECTRONICSAB160005



**Description :**

BPSK DEPSK DPSK Trainer

**Technical Specification :**

Advance Digital Communication Trainer System that helps one under stand various Digital Modulation and Demodulation Techniques. Various functional block diagrams are provided on-board as an aid for Teaching/Training. These Kits are provided with various Test Points to visualize the signals on Oscilloscopes.

**FEATURES:**

Onboard synchronized 500 KHz Sine-wave generator.

Differential Encoding type Data Format.

On-board crystal controlled Pulse Generator.

On board 8 bit Data Simulator.

Block Description screen printed on PCB.

In-Built Power Supply

#### LIST OF EXPERIMENTS:

Principles of advance digital modulation techniques.

Differential Encoding of Data.

Binary Phase Shift Keying Modulation / Demodulation technique.

Differential Phase Shift Keying Modulation / Demodulation technique.

Differentially Encoded Phase Shift Keying Modulation / Demodulation technique.

Effect of Switch Faults.

#### SPECIFICATIONS:

Carrier Sine Wave Generator

Provides synchronized Sine waveform output of 500KHz(0 deg.), 500KHz(180 deg.)

Clock And Data Generator

8 bit variable NRZ-L pattern generated depending on the position of the 8-dit Data Switch provided.

Clock Frequency is of 250 Khz.

Data Format (Coding)

Non Return to Zero-Level (NRZ-L)

Differential Encoded NRZ-L.

Carrier Modulation Techniques

BPSK modulation

DPSK modulation

DEPSK modulation

On-board features

Square Looping Technique used in Demodulation section

Switch Faults are provided on board to study different effects on circuit

lock 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,  $\pm 12\text{V}/250\text{mA}$  with Power ON indication

Attractive enclosure

Set of 2mm Patch cords for interconnections

User's Manual with sample experiments programs

## Naugralabequipments

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