

## ADCT-01

### BPSK / DPSK & DEPSK MOD./DEMODO. KIT



**ADCT-XX** is an Advance Digital Communication Trainer System that helps one understand 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

#### 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
- 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 ABS Plastic enclosures.
- Set of 2mm Patch cords for interconnections
- User's Manual with sample experimental programs

#### 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.

Note : Specifications can be altered without notice in our constant efforts for improvement.