



**Order Code- 40616** is a 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

#### Data Generator

 On-board 8 bit Data Generator for simulation of data coding.

#### 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, ±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.

Note: Specifications are subject to change.

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