



Order Code-40622 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:

- The board consists of the following built-in parts :
- On-board Noise Generator.
- On-board PRBS Generator.
- On-board Bit Error Rate Meter.
- Switch faults are provided to study its effects on circuits
- Block Description screen printed on PCB
- In-Built Power Supply

LIST OF EXPERIMENTS:

- Study of pulse amplitude modulation of digital data for base band transmission.
- Study of data extraction and recovery in base band digital transmission.
- Study of transmission and reception of band limited pulse train in base band digital transmission system.
- Study of eye pattern.
- Observation and calculation of noise margin percentage.
- Measurement of bit error rate using binary data.
- Study of message Scramblers and Unscramblers.
- Effect of Switch Faults.

SPECIFICATIONS:

- **Noise Generator**
 - Provides White Noise Source output
 - Amplitude of 0 - 4Vp-p
 - Provision for Amplitude adjustments provided.
- **PRBS Generator**
 - 16 Bit switch selectable
 - Jumper selectable clock rate of 16, 32, 64, 128, 256, 512 KHz, and 1.024
- **BIT ERROR RATE Meter**
 - Four digit counter displayed on seven segment
 - Four digit seven segment counting up to 9999
 - LED for terminal count indication provided
- **Digital Modulation Technique**
 - Pulse Amplitude Modulation technique is used
 - Internal sampling clock: of 16 KHz to 1MHz
 - 50 % duty cycle
- **Coding Operation**
 - 16 bit data pattern for scrambler
 - 16 bit data pattern for unscrambler
- **On-board features**
 - Switch Selectable first order Butterworth Transmitter filter (Five Bands)
 - Switch Selectable first order Butterworth Receiver filter (Five Bands)
 - 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 enclosure
- Set of 2mm Patch cords for interconnections
- User's Manual with sample experiments

Note: Specifications are subject to change.

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