



Order Code-40623 is an 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:

- On-board Sine-wave generator.
- On-board Four Carrier Sine waves of 500Khz.
- On board three nos. of 8-bit NRZ-L. Data Simulator.
- Clock frequency of 250 Hz.
- Dat Format (Coding) is NRZ-L, Tribit encoded and Differential Encoded I & Q bits.
- In-Built Power Supply.

LIST OF EXPERIMENTS:

- To study the elements of 8-QAM / DQAM system.
- Tribit coding technique of NRZ-L data format.
- Differential Encoding of Data.
- 8-QAM Modulation technique.
- DQAM Modulation technique.
- To study of constellation Diagram of QAM.
- To study bandwidth efficiency in QAM techniques.
- Effect of Switch faults.

SPECIFICATIONS:

- **Carrier Sine Wave Generator**
 - Four carrier sine waves Generated onboard.
 - Provides synchronized Sine waveform output of 500KHz(0deg.), 500KHz(90 deg.), 500KHz(180 deg.), 500KHz(270 Deg.).
- **Clock And Data Generator**
 - 24 bit variable NRZ-L pattern generated depending on the position of the three nos. of 8-dit Data Switch provided.
 - Clock Frequency is of 250 Khz.
- **Data Format (Coding)**
 - Non Return to Zero-Level (NRZ-L)
 - Tribit encoded data (I, Q & C)
 - Differential Encoded I & Q Bits.
- **Carrier Modulation Techniques**
 - Quadrature Amplitude Modulation.
 - Differentially Quadrature Amplitude Modulation.
- **On-board features**
 - On board Three Nos. of 8 bit variable NRZ-L pattern Data Simulator
 - 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 programs

Note: Specifications are subject to change.

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