

ADCL - 02 QPSK AND DQPSK MODULATION KIT



ACCESSORIES:

Red Short Links	: 14 Nos.
Long Links	: 02 Nos.
Crocodile Links	: 02 Nos.
Experimental Manual	: 01 No.
Circuit Description Manual	: 01 No.
Power Supply Double Connector	: 01 No.

OPTIONAL:

ADCL-04 Baseband Digital Transmission Trainer kit
e-Manual Interactive Multimedia Software & Manual

This Kit is an advanced version of model DCL-05 . It covers the digital modulation techniques like QPSK, DQPSK, etc.

FEATURES:

- On-board synchronized Sine Wave Signal Generator with four different phases
- On-board Data Generator
- Dibit coding
- Symbol coder
- QPSK and DQPSK modulation
- Switch faults
- Provision for interfacing baseband modulation trainer kit (Optional) for noise effect in constellation diagram

TECHNICAL SPECIFICATIONS:

Data Simulator: On board 8 bit variable NRZ-L pattern.

Clock Frequency: 250KHz BIT, Bit Clock and Word Clock

Data Format (coding): Dibit Pair (I & Q), Differential Encoding of I & Q Bits

On Board Carrier Sine Waves: 500KHz(0 deg.), 500KHz(90 deg.), 500KHz(180 deg.), 500KHz(270 deg.).

Carrier Modulation: QPSK, DQPSK.

Switch Faults: 4 Switch Faults are provided on-board to study different effects on circuit.

Interconnection: 2 mm Banana Socket.

Test Points: 24 Test points are provided to observe various intermediate signals.

Power Supply: GND, +5V, +12V, -12V.

LIST OF EXPERIMENTS:

- Principles of Advance Digital modulation techniques.
- Dibit pair Data Coding technique of NRZ-L data format.
- Differential Encoding of I & Q Bits.
- Quadrature Phase Shift Keying Modulation technique.
- Differential Quadrature Phase Shift Keying Modulation technique.
- Effect of Switch Faults.



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