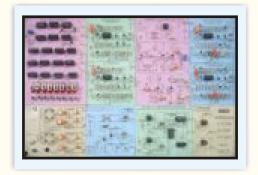


## **QPSK MODULATION/DEMODULATION IN PRESENCE OF NOISE**

MODEL - COM117Z

This trainer has been designed with a view to provide practical/experimental knowledge of Generation & Reception of QPSK in the presence of Noise.



## **SPECIFICATIONS**

Power supply requirement 230V AC, 50 Hz. 1.

2. On Board Digital Data generator to generate any binary word of

Word Length 8 Bits. Word Clock Frequency 10 KHz.

**Data Format** NRZ, Even and Odd Bits. 3. On Board synchronized RF Carrier: 1.28 Mhz - Sine & Cosine. 4. Gaussian Noise Generator 0 to 1Vrms variable amplitude.

5. Modulator Type Using two Balanced Modulators with two PSK and adder

6. Demodulator Type Balanced Modulator detectors. 7. Matched Filter Integrate and Dump Filter

8. Decision Threshold Comparator

All parts are soldered on single PCB with multicolor Section wise blocks and complete circuit diagram Screen-printed with true value of part. The PCB provided with multi-colour 2mm Testing points and acrylic cover for safety in wooden box.

10. Standard Accessories 1. A Training Manual.

2. Connecting Patch cords.

## **EXPERIMENTS**

- To study theory of QPSK Modulation & Demodulation. 1.
- To generate QPSK signal. 2.
- To demodulate QPSK signal in the presence of Gaussian Noise.
- To measure signal to Noise ratio of QPSK signal using Spectrum analyzer or Selective level meter. 4.
- To observe QPSK output for different input binary codes on Spectrum analyzer. 5.

In keeping view of SIGMA policy of continuous development and improvement, the Specifications may be changed without prior notice or obligation.

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