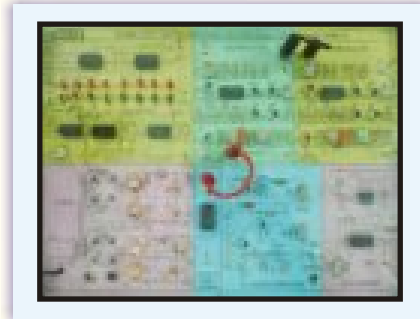




# PSK MODULATION/DEMODULATION TRAINER WITH BIT ERROR MEASUREMENT

MODEL - COM116BIT

This trainer has been designed with a view to provide practical/experimental knowledge of PSK Modulation /Demodulation with Bit Error Measurement on a SINGLE PCB.



## SPECIFICATIONS

1. Power supply requirement : 230V AC, 50 Hz.
2. On Board PN sequence Data generator  
Data Length : 16 Bits.  
Bit Clock Frequency : 30 KHz  
Data Format : Bipolar NRZ.  
Time Frame/Bit Burst : 10000 Bits, 1000 Bits and Continues selectable by Switch.
3. Gaussian Noise : 0 to 1V rms variable amplitude.
4. Adder to add PN signal and Gaussian Noise.
5. Matched Filter : Integrate and Dump Filter
6. Decision Threshold : Comparator and EX-OR circuit.
7. Error Count Display : Seven Segment 4 digit
8. Modulator Type : Using Balanced Modulator.
9. Demodulator Type : Balanced Modulator detectors.
10. All parts are soldered on single PCB with Section wise blocks and complete circuit diagram screen-printed.
11. Standard Accessories : 1. A Training Manual  
2. Connecting Patch cords.

## EXPERIMENTS

1. To Observe PSK Modulation and Demodulation Waveforms on CRO.
2. To Observe Spectrum of PSK Modulation Signal and determine Essential bandwidth.
3. To Measure Bit error rate in presence of channel noise
4. To analyze reception quality by cross co-relation characteristics using Matlab Simulink software.

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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