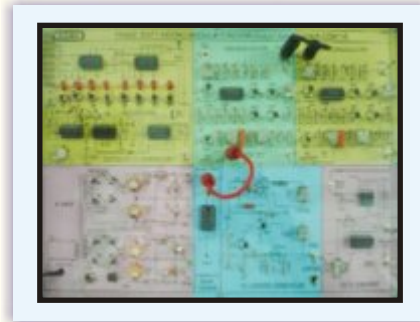




# GENERATION & RECEPTION OF BPSK WITH BIT ERROR MEASUREMENT MODEL - COM116BIT

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



## 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, 100 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 multicolor Section wise blocks and complete circuit diagram Screen-printed with true value fo part. The PCB provided with multi-colour 2mm Testing points and acrylic Cover for safety in wooden box.
11. Standard Accessories : 1. A Training Manual  
2. Connecting Patch cords.

## EXPERIMENTS

1. To study theory of PSK Modulation & Demodulation.
2. To generate PSK signal.
3. To demodulate PSK signal in the presence of Gaussian Noise.
4. To observe spectrum of PSK signal on Spectrum analyser.
5. To measure Bit Error rate and draw  $E_b/N_0$  Graph.

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

**Sigma Trainers and Kits**  
E-113, Jai Ambe Nagar,  
Near Udgam School,  
Thaltej,  
**AHMEDABAD - 380054.**  
**INDIA.**

**Phone(O): +91-79-26852427/ 26850829**  
**Phone(F): +91-79-26767512/ 26767648**  
**Fax : +91-79-26840290/ 26840290**  
**Mobile : +91-9824001168**  
**Email : sales@sigmatrainers.com**  
**: sigmatrainers@sify.com**  
**Web : www.sigmatrainers.com**

**Dealer:-**