

## DETECTION OF DIGITAL BASEBAND SIGNAL USING MATCHED FILTER IN THE PRESENCE OF NOISE

MODEL - COM120L

This trainer has been designed with a view to provide practical/experimental knowledge of Measurement of Bit Error rate using matched filter.



## **SPECIFICATIONS**

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

2. Built in IC based power supply.

2. On Board Modulating Digital Data signal generator.

Word Length : 50% Duty cycle Square NRZ Pulse.

3. Baseband data Format : NRZ

Gaussian Noise : 0 to 1V rms variable amplitude.
Matched Filter : Integrate and Dump Filter

6. Decision Threshold : Comparator

7. All parts are soldered on single PCB with Section wise blocks and complete circuit diagram Screen-printed.

8. Standard Accessories : 1. A Training Manual and Connecting Patch cords.

## **EXPERIMENTS**

- 1. To study theory of Baseband Transmission.
- 2. To generate NRZ using pulse generator.
- 3. To generate Gaussian and add it to baseband signal.
- 4. To detect baseband signal in the presence of Noise using Integrate and Dump filter and comparator.
- 5. To observe Baseband signal using Spectrum analyser.

**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:-