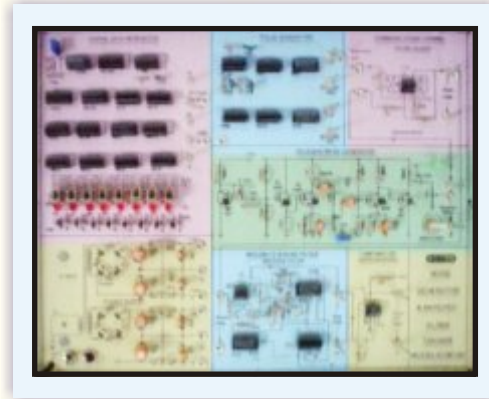




# DETECTION OF DIGITAL BASEBAND SIGNAL USING MATCHED FILTER IN THE PRESENCE OF NOISE MODEL - COM120L

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
4. Gaussian Noise : 0 to 1V rms variable amplitude.
5. Matched Filter : Integrate and Dump Filter
6. Decision Threshold : Comparator
7. 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.
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.

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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