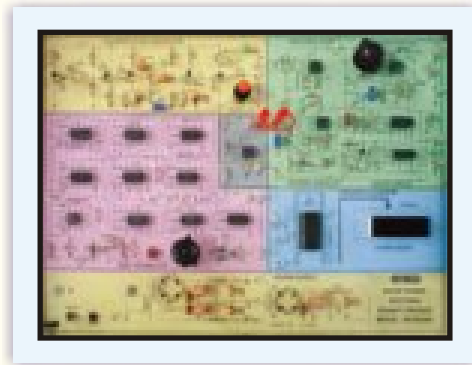




# NOISE POWER SPECTRAL DENSITY TRAINER

## MODEL - COM120SD

This trainer has been designed with a view to provide practical/experimental knowledge of Measurement of Noise power spectral density.



### SPECIFICATIONS

- |   |   |  |
|---|---|--|
| 1. Power supply requirement                   | : | 230V AC, 50 Hz.  |
| 2. Built in IC based power supply             | : | +12V, -12V, +5V.   |
| 3. On Board PN sequence Data generator        | : |  |
| Data Length                                   | : | 16 Bits.   |
| Bit Clock Frequency                           | : | 30 KHz   |
| Data Format                                   | : | NRZ.   |
| Time Frame/Bit Burst                          | : | 10000 Bits, 100 Bits and Continuous selectable by Switch.                              |
| 4. Gaussian Noise                             | : | 0 to 1V rms variable amplitude.  |
| 5. Adder to add PN signal and Gaussian Noise. | : |  |
| 6. Matched Filter                             | : | Integrate and Dump Filter  |
| 7. Decision Threshold                         | : | Comparator and EX-OR circuit.  |
| 8. Error Count Display                        | : | Seven Segment 4 digit  |
| 9. Standard Accessories                       | : | 1. Experimental and Circuit Description Manual.<br>2. Connecting Patch cords. (6 Nos.) |

### EXPERIMENTS

1. To study theory of Gaussian Noise and PN Data.
2. To add Gaussian Noise and PN Data and receive it with matched filter
3. To measure bit error rate, Noise Power, Signal Power.
4. To measure Signal to Noise Ratio.
5. To calculate Noise power spectral density.

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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