

DIRECT SEQUENCE SPREAD SPECTRUM MODULATION/DEMODULATION TRAINER

MODEL - DSSS100K

This trainer has been designed with a view to provide practical / experimental knowledge of Direct Sequence Spread Spectrum Modulation/Demodulation.



SPECIFICATIONS

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

2. On Board Pseudo-Noise (PN) Code generator.

Bits : 16 bits
Clock Frequency : 100 KHz

3. On Board Digital Data generator to generate any binary input word of

Word Length : 8 Bits.

Bit Clock Frequency : 6.666 KHz

Data Format : NRZ.

4. Spreading Code Mixer and Unipolar to Bipolar Converter section.

5. Modulator Type : Coherent Binary PSK Modulator

6. Demodulator Type : Coherent Detector.

Low pass Filter cutoff Frequency : 105 KHz

Code Despreading : Using EX-NOR gate.

7. All parts are soldered on single PCB with complete circuit diagram Screen-printed in multicolor.

8. Standard Accessories : 1. A Training Manual

2. Connecting Patch cords.

EXPERIMENTS

- 1. To study theory of CDMA-DSSS Modulation & Demodulation.
- 2. To generate CDMA-DSSS signal and demodulate it.
- 3. To study spreading and dispersing
- 4. To study effect of channel noise using MATLAB simulation
- 5. To study single tone interference.

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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