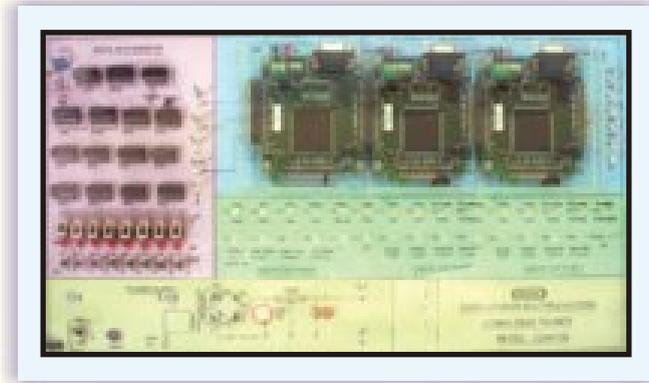




CDMA TRAINER WITH BIT ERROR MEASUREMENT

MODEL - CDMA100B

This trainer has been designed with a view to provide practical and experimental knowledge of Code Division Multiple Access (CDMA) technique as practically implemented for cellular telephony.



SPECIFICATIONS

1. Direct Sequence Spread-Spectrum (DSSS) Modulator, Demodulator.
2. Programmable chip rates up to 10 Mchip/s
3. Spreading Codes
4. Gold sequence(up to 223-1) chips
5. Maximal length sequences, (max length 223-1) chips)
6. Barker codes(length 11,13)
7. Code Modulation: PSK/QPSK/ OQPSK with output spectral shaping filter
8. Raised cosine square root filter with 20%, 25% or 40% roll off
9. Internal generation of pseudo-random bit stream and un modulated carrier for test purposes.
10. Built-in channel impairments generation
11. Additive White Gaussian Noise
12. Freq. Offset(Doppler)
13. Sequential code search
14. 4-bit soft-quantizes demodulated bits
15. Extensive monitoring
16. Receiver monitoring
17. Carrier freq. Error

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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Dealer:-

For bit error rate measurement

1. Measurement of actual bit errors while a known PRBS-11 pseudo random test sequence is being transmitted.
2. Accurate BER measurement down to 10°
3. Adjustable Measurement window from 1,000 bits to 1,000,000,000 bits to trade off BER range and measurement duration
4. Fast automatic synchronization
5. Cycle slips detection
6. 32-bit cumulative BER counter for long duration measurements
7. 1 bit serial / 2 bit parallel input selection (I before Q, or I/Q)

Com scope software : key internal signals can be captured in real-time and displayed on host computer itself.

BER measurement is made by counting actual errors in the received bit stream.

The received bit stream is compared with a locally generated replica of the reference PRBS-11 Sequence.

The reference sequence is a periodic 2047-bit long maximum length sequence generated by a 11-tap liner feedback shift register

Accessories:-

1. Software CD-Rom, Theory manual, Programming Software Operating & application manual Faq's, Serial interface cable.