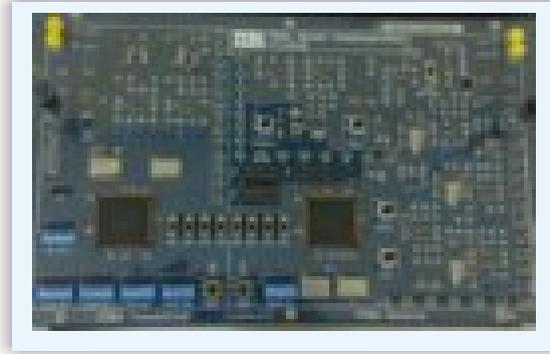# SIGMA

REAL CDMA TRAINER
MODEL - CDMA100R

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

SPECIFICATIONS

The experiment apparatus has designed a complete direct-spread code-division multiple access (DS-CDMA) mobile communication system, which realizes wireless transceiver by carrier and tightly combines textbook of Spread Spectrum Communication, and outlines the key points of textbook, such as GOLD sequence, spread spectrum and dispread spectrum, acquisition and tracking, synchronization extraction, error correction encoding and so on, enabling users to further understand the essence of CDMA by experiments

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CDMA system includes many functions, such as direct spread spectrum and dispread spectrum, code division multiple access, acquisition and tracking of pseudo-random sequence, bit synchronization, frame synchronization extraction, carrier recovery, error correction coding and encoding, which could compose a complete CDMA mobile communication system. Simultaneously, it could establish big CDMA system between two or multiple experiment apparatus through wireless transmission.

1. Signal code speed: 1kbit/s, 2kbit/s
2. Spread spectrum code speed: 100kbit/s, 200kbit/s
3. Spread spectrum gain: 50, 100, 200
4. Spread spectrum mode: direct spread spectrum
5. Modulation mode: PSK, DPSK (optional)
6. Carrier frequency: 10.7MHz
7. Power Supply - Input: AC 220V±10%
    Output: DC ±12V/±5%, ±5V/±5%, -8V/±5%
8. Standard Accessories   :   Software, Theory manual, Operating & applications manual
                                      Faq's, Serial interface cable.

In keeping view of SIGMA policy of continuous development and improvement, the Specifications may be changed without prior notice or obligation.

CDMA TRAINER

MODEL - CDMA100R

EXPERIMENTS

1. GOLD sequence characteristic experiment
2. Acquisition and tracking experiment of GOLD sequence
3. Spread spectrum and dispread spectrum experiment
4. Carrier extraction experiment
5. PSK modulation and demodulation experiment
6. Bit synchronization extraction experiment
7. Frame synchronization extraction experiment
8. Error correction encoding experiment
9. CDMA mobile communication system experiment